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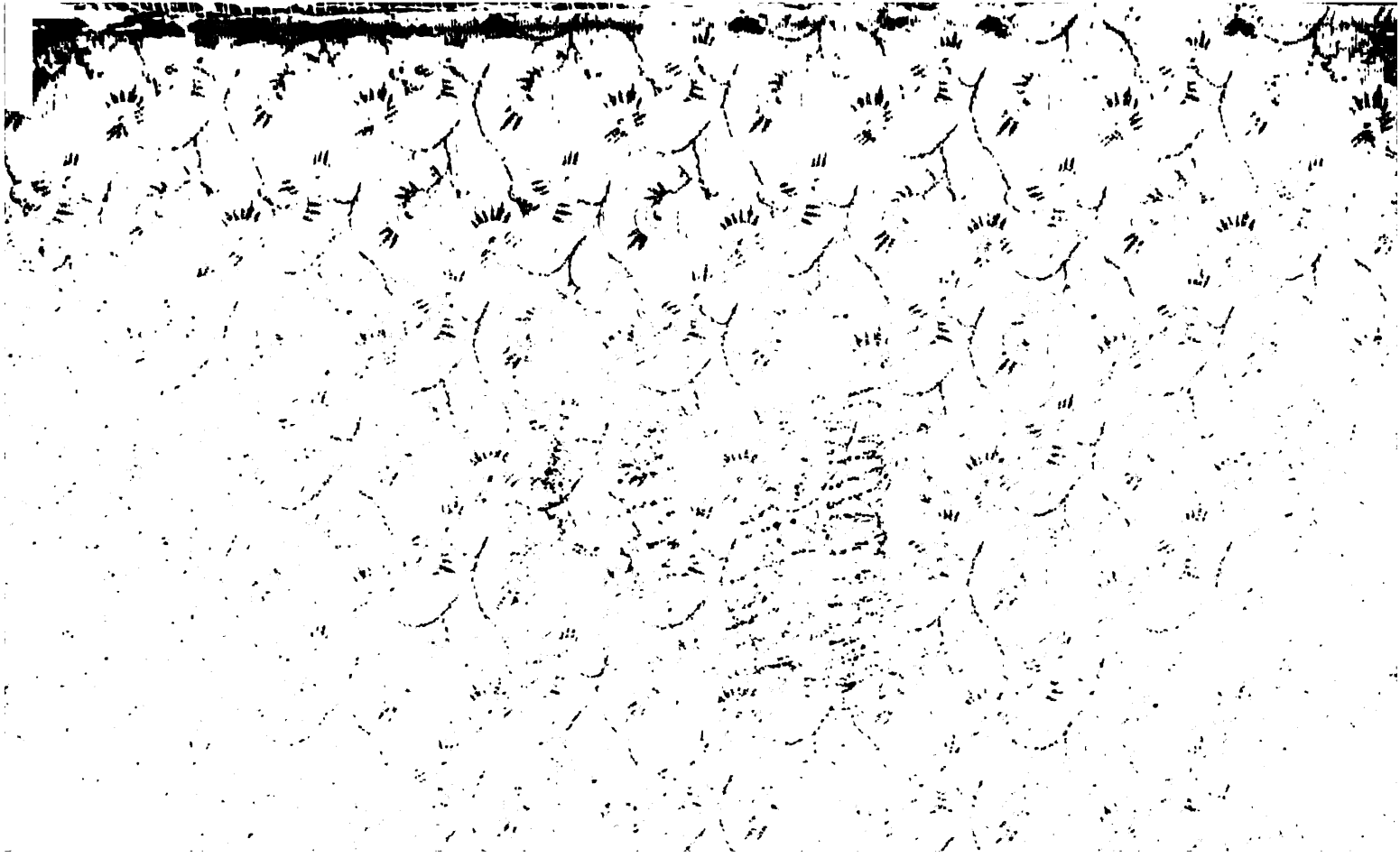

1899

PROCEEDINGS

OF THE

BOARD OF TRUSTEES

OF THE

SANITARY DISTRICT OF CHICAGO

From January 1, 1899 to December 31, 1899

SECURITY BUILDING

CHICAGO:
JOHN F. HIGGINS, PRINT 196 AND 198 CLARK STREET
1900

641.0971
I4
C5
R6
1899

Medical
Gift
6-13-53

MEMBERS OF

BOARD OF TRUSTEES AND OFFICERS

OF THE

SANITARY DISTRICT OF CHICAGO

For the Years 1899 and 1900

BOARD OF TRUSTEES

WILLIAM BOLDENWECK,	1681 North Halsted Street
JOSEPH C. BRADEN,	159 La Salle Street
ZINA R. CARTER,	225 West Sixteenth Street
BERNARD A. ECKHART,	377 Carroll Avenue
ALEXANDER J. JONES,	707 Tacoma Building
THOMAS KELLY,	1411 Unity Building
JAMES P. MALLETTE,	309 Tacoma Building
THOMAS A. SMYTH,	803 Jackson Boulevard
FRANK WENTER,	475 Ashland Boulevard

OFFICERS

WILLIAM BOLDENWECK,	President of the Board
JOSEPH F. HAAS,	Clerk of the District
FRED M. BLOUNT,	Treasurer of the District
ISHAM RANDOLPH,	Chief Engineer of the District
CHARLES C. GILBERT,	Attorney of the District

OFFICES OF THE DISTRICT, SECURITY BUILDING

COMMITTEES FOR 1899-1900.

JUDICIARY.

JAMES P. MALLETTE, Chairman.

BERNARD A. ECKHART, ALEXANDER J. JONES,
JOSEPH C. BRADEN, THOMAS KELLY.

FINANCE.

ZINA R. CARTER, Chairman.

BERNARD A. ECKHART, FRANK WENTER,
THOMAS KELLY, ALEXANDER J. JONES.

ENGINEERING.

THOMAS A. SMYTH, Chairman.

JAMES P. MALLETTE, ALEXANDER J. JONES, ZINA R. CARTER,
FRANK WENTER, BERNARD A. ECKHART,
JOSEPH C. BRADEN, THOMAS KELLY, THE PRESIDENT.

FEDERAL RELATIONS.

FRANK WENTER, Chairman.

BERNARD A. ECKHART, ALEXANDER J. JONES,
ZINA R. CARTER, THOMAS A. SMYTH.

LABOR.

JOSEPH C. BRADEN, Chairman.

THOMAS A. SMYTH, ALEXANDER J. JONES,
FRANK WENTER, BERNARD A. ECKHART.

HEALTH AND PUBLIC ORDER.

THOMAS KELLY, Chairman.

ALEXANDER J. JONES, JAMES P. MALLETTE,
THOMAS A. SMYTH, ZINA R. CARTER.

RULES.

THE PRESIDENT, Chairman.

ALEXANDER J. JONES, JOSEPH C. BRADEN,
JAMES P. MALLETTE, THOMAS KELLY.

REGULAR MEETINGS.

The Board of Trustees meets every Wednesday at 2 o'clock P. M.

ALL COMMITTEES SUBJECT TO CALL OF CHAIRMAN.

COMPLETE LIST OF MEMBERS OF BOARD OF TRUSTEES.

JOHN J. ALTPETER	Elected December 12, 1889; served to December 2, 1895
ARNOLD P. GILMORE	Elected December 12, 1889; served to December 2, 1895
RICHARD PRENDERGAST	Elected December 12, 1889; served to December 2, 1895
WILLIAM H. RUSSELL	Elected December 12, 1889; served to December 2, 1895
FRANK WENTER	Elected December 12, 1889; served to December 2, 1895
CHRISTOPH HOTZ	Elected December 12, 1889; resigned January 16, 1892
JOHN A. KING	Elected December 12, 1889; resigned July 22, 1891
MURRY NELSON	Elected December 12, 1889; resigned June 19, 1891
HENRY J. WILLING	Elected December 12, 1889; resigned September 23, 1891
WILLIAM BOLDENWECK	Elected to fill vacancy, November 3, 1891
LYMAN E. COOLEY	Elected to fill vacancy, November 3, 1891
BERNARD A. ECKHART	Elected to fill vacancy, November 3, 1891
THOMAS KELLY	Elected to fill vacancy, November 8, 1892
WILLIAM BOLDENWECK	Re-elected November 5, 1895
JOSEPH C. BRADEN	Elected November 5, 1895
ZINA R. CARTER	Elected November 5. 1895
BERNARD A. ECKHART	Re-elected November 5, 1895
ALEXANDER J. JONES	Elected November 5, 1895
THOMAS KELLY	Re-elected November 5, 1895
JAMES P. MALLETTE	Elected November 5, 1895
THOMAS A. SMYTH	Elected November 5. 1895
FRANK WENTER	Re-elected November 5, 1895

COMPLETE LIST OF OFFICERS OF DISTRICT.

PRESIDENT

MURRY NELSON	Elected February 1, 1890; served to December 2, 1890
RICHARD PRENDERGAST	Elected December 2, 1890; served to December 8, 1891
FRANK WENTER	Elected December 8, 1891; served to December 3, 1895
BERNARD A. ECKHART	Elected December 3, 1895; served to December 8, 1896
THOMAS KELLY	Elected December 8, 1896; served to December 7, 1897
WILLIAM BOLDENWECK	Elected December 7, 1897

CLERK

AUSTIN J. DOYLE	Elected February 1, 1890; resigned June 25, 1890
THOMAS F. JUDGE	Elected July 12, 1890; resigned January 1, 1896
JAMES REDDICK	Elected January 1, 1896; resigned December 1, 1898
JOSEPH F. HAAS	Elected December 1, 1898

TREASURER

BYRON L. SMITH	Elected February 1, 1890; resigned January 15, 1892
MELVILLE E. STONE	Elected January 23, 1892; served to December 2, 1896
FRED M. BLOUNT	Elected December 2, 1896

CHIEF ENGINEER

LYMAN E. COOLEY	Elected February 1, 1890; served to December 10, 1890
WILLIAM E. WORTHEN	Elected December 17, 1890; resigned April 21, 1891
SAMUEL G. ARTINGSTALL	Elected May 9, 1891; resigned January 16, 1892
BENEZETTE WILLIAMS	Elected January 16, 1892; resigned June 7, 1893
ISHAM RANDOLPH	Elected June 7, 1893

ATTORNEY

GEORGE W. SMITH	Elected July 12 1890; resigned April 25, 1891
ADAMS A. GOODRICH	Elected June 13, 1891; resigned February 23, 1892
ORRIN N. CARTER	Elected February 24, 1892; resigned August 15, 1894
GEORGE E. DAWSON	Elected August 15, 1894; resigned January 1, 1896
CHARLES S. DENEEN	Elected January 1, 1896; resigned April 1, 1896
WILLARD M. McEWEN	Elected April 1, 1896; resigned February 3, 1897
FREDERICK W. C. HAYES	Elected February 3, 1897; died November 1, 1898
CHARLES C. GILBERT	Elected November 30, 1898

SANITARY DISTRICT OF CHICAGO.

PROCEEDINGS OF THE BOARD OF TRUSTEES.

INDEX, 1899.

ADAMS STREET— Page

Message from President transmitting letters from Secretary of War in reference to permits for construction of coffer-dam at, etc., March 22, 1899 5581

Letters above referred to printed in full, March 22, 1899 5582

Message from President transmitting permit from Acting Secretary of War for construction of temporary coffer-dam for By-pass between Van Buren and, May 17, 1899 5702

Agreements—

American Steel and Wire Company of New Jersey, for conveying certain land, for water power, and for motor for transmission of water power, June 21, 1899 5882

Atchison, Topeka and Santa Fe Railway Company, for temporary occupation of right of way for use of eight-track bridge, July 19, 1899 5933

Atchison, Topeka and Santa Fe Railway Company, et al. ("Santa Fe System"), supplemental agreement in reference to movable bridges, January 25, 1899 5435

Belt Railway Company of Chicago and Chicago and Western Indiana Railroad Company, for crossing right of way, January 11, 1899 5396

Canal Commissioners, The, for maintenance of "Summit Level," December 21, 1899 6199

Chicago, City of, for construction of Canal Street bridge, September 26, 1899 6037

Chicago Bridge and Iron Company—

For Van Buren Street approach span, January 11, 1899 5409

For Taylor Street bridge, May 10, 1899 5680

For superstructure C., R. I. & P. Ry. Co. bridge, June 7, 1899 5851

Chicago Junction Railway Company—

Supplementary agreement in reference to extension of time on supplemental agreement for movable bridge, February 1, 1899 5448

For transfer of C. T. T. R. R. Co.'s tracks, September 6, 1899 6019

Chicago, Santa Fe and California Railway Company, for exchange of lands, January 25, 1899 5437

Chicago and Western Indiana Railroad Company and Belt Railway Company of Chicago, for crossing right of way, January 11, 1899 5396

City Trust, Safe Deposit and Surety Company of Philadelphia (The), consent of, to assignment of contract for substructure of eight-track bridge by The Scherzer Rolling Lift Bridge Company to McArthur Bros. Co., July 12, 1899 5925

Joliet Bridge and Iron Company (The), for superstructure for Tow path Bridge crossing River Diversion, October 12, 1899 6066

Joliet Railroad Company, for temporary crossing Desplaines River at Jefferson Street, Joliet, Illinois, March 1, 1899 5499

Agreements— Page
McArthur Brothers Company—
Assignment by The Scherzer Rolling Lift Bridge Company to, of contract for substructure of eight-track bridge, July 12, 1899 5924
Consent of The City Trust, Safe Deposit and Surety Company of Philadelphia to said assignment, July 12, 1899 5925
Consent of Sanitary District to said assignment, July 12, 1899 5925
Waiver of all claims by said assignor arising out of said contract, July 12, 1899 5926
Acceptance by, of said assignment, July 12, 1899 5926
Metropolitan West Side Elevated Railway Company (The), for By-pass, June 7, 1899 5860
Metropolitan West Side Elevated Railway Company (The) and Pennsylvania Company, for By-pass, June 7, 1899 5863
Oliver, David—
For conveying land and for water power, June 7, 1899 5866
For motor for transmission of water power, June 7, 1899 5869
Pennsylvania Company, and The Metropolitan West Side Elevated Railroad Company, for By-pass, June 7, 1899 5863
Pennsylvania Steel Company, for Chicago Terminal Transfer Railway Company bridge near Taylor Street, May 17, 1899 5779
Scherzer Rolling Lift Bridge Company (The)—
Assignment by, to McArthur Bros. Co., of contract for substructure of eight-track bridge, July 12, 1899 5924
Consent of The City Trust, Safe Deposit and Surety Company of Philadelphia to said assignment, July 12, 1899 5925
Consent of Sanitary District to said assignment, July 12, 1899 5925
Waiver of all claims by said assignor arising out of said contract, July 12, 1899 5926
Acceptance by McArthur Bros. Co. of said assignment, July 12, 1899 5926
Thomas Moulding Company, for cement for use of substructure of eight-track bridge, July 26, 1899 5945
Toledo Bridge Company (The), for Belt Railway Company of Chicago and Chicago and Western Indiana Railroad Company bridge, May 31, 1899 5821
Wagner, J. G. Company (The)—
For Jefferson Street bridge, April 12, 1899 5612
For Cass Street bridge, April 12, 1899 5624
Alger, R. A., Secretary of War—
Message from President transmitting letters from, in reference to permits for construction of coffer-dam at Adams Street, temporary and permanent bridges for C. T. T. R. R. Co., and permanent bridge at Taylor Street, March 22, 1899 5581
Letters above referred to printed in full, March 22, 1899 5582
Permit from, for connection of Main Channel with Chicago River, May 10, 1899 5675
Allen, Chester A.—
Report of Committee on Engineering in reference to settlement with, for lands and damages, April 26, 1899 5664
Allison, John T.—
Communication from, in reference to condition of highway at Summit, Ill., referred to Committee on Engineering, February 1, 1899 5450
American Bridge Works—
Report of Chief Engineer transmitting bill of sale from, to Griffiths & McDermott for steel in By-Pass along Chicago River, and asking authority of a payment of $32,000.00 on account, March 23, 1899 5589
American Steel and Wire Company of New Jersey—
Report of Committee on Engineering transmitting agreement with for conveying certain land, for water power, and motor for transmission of water power, June 21, 1899 5882
Agreement with, for conveying certain land, for water power, and motor for transmission of water power, June 21, 1899 5882
American Stone Company (The) ads. Sanitary District—
Report of Joint Committee on Finance and Engineering on payment for certain lands in accordance with court decree in case of, July 5, 1899 5913
Analyses of Waters of Rivers and Canal—
Report of Joint Committee on Federal Relations and Health and Public Order in reference to, March 29, 1899 5597
Order in reference to same, March 29, 1899 5597
Report of Committee on Engineering in reference to advancing monthly payment to Dr. Arthur R. Reynolds on account of, July 19, 1899 5939

Page

Angus & Gindele—
Communication from, in reference to payment by Halvorson, Richards & Co. certain claims against Section E, referred to Joint Committee on Judiciary and Engineering, March 22, 1899 5585
Report of Committee on Engineering on same, December 27, 1899 6220
Report of Committee on Engineering in reference to final certificate (and the supplement thereto) for Halvorson, Richards & Co. on contract for Section E assigned by, December 27, 1899 6220
Final certificate above referred to, December 27, 1899 6222
Supplement to the final certificate above referred to, December 27, 1899 6223
Annual meeting of Board of Trustees, December 5, 1899 6145
Annual message from President Boldenweck, December 5, 1899 145

Annual Reports—
Clerical Department for 1898, February 15, 1899 5463
Engineering Department for 1898, May 17, 1899 5704
Law Department for 1898, March 8, 1899 5524
Police Department for 1898, January 11, 1899 5402
Treasury Department for 1898, February 8, 1899 5457
Appointment of Committees for 1899-1900, December 13, 1899 6161
Assignments—(*See Agreements.*)

Atchison, Topeka and Santa Fe Railway Company—
Chief Engineer's final certificate on bridge substructure at west end of Section N of, for McArthur Bros. Company and Winston & Co., referred to Committee on Engineering, January 4, 1899 5390
Report on Same January 11, 1899 5406
Final certificate above referred to printed in full, January 11, 1899 5407
Chief Engineer's final certificate on bridge superstructure on Section 8 of, for Penn Bridge Company, referred to Committee on Engineering, January 4, 1899 5390
Report on same, January 11, 1899 5406
Final certificate abo ve referred to printed in full, January 11, 1899 5407
Report of Committee on Judiciary reducing bond of McArthur Bros. Company and Winston & Co. for contract for bridge substructure at west end of Section N for, January 18, 1899 5431
Chief Engineer's report transmitting communication from Carnegie Steel Company, Ltd., for release of bond on contract for bridge superstructure on Section G of, referred to Committee on Engineering, January 25, 1899 5440
Report on same, April 12, 1899 5628
Chief Engineer's report transmitting communication from Carnegie Steel Company, Ltd., for release of bond on contract for bridge superstructure for, near east end Section G, referred to Committee on Engineering, March 17, 1899 5574
Report on same, April 12, 1899 5628
Chief Engineer's final certificate on bridge superstructure near east end of Section G of, for Carnegie Steel Company, Ltd., referred to Committee on Engineering, February 8, 1899 5457
Report on same presented and recommitted to said Committee, February 16, 1899 5476
Report on same, April 12, 1899 5626
Final certificate above referred to printed in full, April 12, 1899 5627
Report of Committee on Finance approving reduced bond of McArthur Bros. Co. and Winston & Co. on contract for substructure of, at west end of Section N, April 19, 1899 5645
Report of Committee on Finance approving reduced bond of Carnegie Steel Company, Ltd., on contract for bridge superstructure of, near east end of Section G, May 17, 1899 5778
Report of Committee on Engineering in reference to agreement with, for temporary occupation of right of way for use of eight track bridge, May 31, 1899 5888
Report of Clark transmitting executed agreement with, for temporary occupation of use of eight-track bridge, July 19, 1899 5933
Agreement above referred to, July 19, 1899 5933
Report of Committee on Engineering in reference to final certificate for Carnegie Steel Company, Ltd., on bridge superstructure for, at west end of Section N, June 14, 1899 5875
Final certificate above referred to, June 14, 1899 5875

Atchison, Topeka & Santa Fe Railway Company— Page
Report of Chief Engineer fixing amount of forfeiture on contract with Carnegie Steel Company, Ltd., for bridge superstructure of, across Main Channel on Section 8, referred to Committee on Engineering, June 21, 1899 5883
Report on same, June 28, 1899 5906
Report of Committee on Engineering in reference to final certificate for Carnegie Steel Company, Ltd., on bridge superstructure for, across Main Channel on Section 8, June 28, 1899 5908
Final certificate above referred to, June 28, 1899 5909
Report of Chief Engineer in reference to payment by, for one-half cost superstructure of A., T. & S. F. Ry. Co. bridge across Desplaines River on Section 8, July 5, 1899 5912
Communications from The City Trust, Safe Deposit and Surety Company of Philadelphia in reference to release of bonds of Carnegie Steel Company, Ltd., on contracts for bridge superstructures for, at west end of Section N and on Section 8, referred to Committee on Finance, July 12, 1899 5928
Report on same, July 26, 1899 5948
Report of Committee on Finance approving reduced bonds of Carnegie Steel Company, Ltd., on contracts for bridge superstructures of, crossing Main Channel at west end of Section N, and Section 8, September 6, 1899 6030
Majority and minority reports of Committee on Engineering in reference to bids on asphalt filling between bridge counterweights of, at Lemont, October 4, 1899 6059
Resolution in reference to payment to Gahan & Byrne amoun of judgment in case of Hoover & Mason vs. Gahan & Byrne on account of delay in giving possession of, right of way on Sections G and H, December 13, 1899 6165
Atchison, Topeka and Santa Fe Railway Company et al. ("Santa Fe System")—
Report of Clerk transmitting supplemental agreement with, in reference to movable bridges, January 25, 1899 5435
Supplemental agreement in reference to movable bridges, January 25, 1899 5435
Report of Chief Engineer transmitting joint certificate covering capitalization of bridge at west end of Section N for, for repairs and maintenance, June 14, 1899 5876
Certificate of engineers determining capitalization for, for maintenance and repairs for bridge at west end of Section N, June 14, 1899 5876
Attorney Authorized or Ordered and Directed—
To require release in full for all claims from Edward Payette, February 1, 1899 5450
To institute condemnation proceedings for right of way across C., S. & C. Ry. in Section 20-37-11 and at Stephens street crossing in Lemont, Ill., and elevate said Company's tracks, etc., March 8, 1899 5569
To dismiss suits against Paul Redieske, July 19, 1899 5938
Attorney, Charles C. Gilbert, Reports—
Transmitting checks for $22.80 and $40.00 received from sale of buildings, machinery, etc., on Joliet right of way, January 4, 1899 5392
Transmitting refunded court costs in case of Sanitary District vs. Schuster et al., April 26, 1899 5650
Transmitting assignment by The Scherzer Rolling Lift Bridge Company to McArthur Bros. Company of contract for substructure of eight-track bridge, consent of The City Trust, Safe Deposit and Surety Company of Philadelphia to said assignment, consent of Sanitary District to said assignment, waiver by Scherzer Rolling Lift Bridge Company of claims for damages and agreement of McArthur Bros. Company, July 12, 1899 5924
Auditing of Books—
Report of Committee on Finance having had audited books of Clerical and Treasury Departments, March 1, 1899 5502

BARNHILL, R.—Report of Clerk in reference to redepositing with Treasurer uncalled pay-envelope of, November 1, 1899 6093
Bear Trap Dam—(See Regulating Works.)
Bell, Thomas S.—(*See Clerk, Acting, Thomas S. Bell.*)
Belt Railway Company of Chicago, The, and Chicago and Western Indiana Railroad Company—
Report of Committee on Engineering on agreement with, for crossing right of way, January 4, 1899 5392
Communication from Alexander J. Jones asking to be recorded in the affirmative on adoption of above report, January 4, 1899 5393
Report of Clerk transmitting agreement with, for crossing right of way, January 11, 1899 5396

Page

Belt Railway Company of Chicago The, and Chicago & Western Indiana Railroad Company--
Agreement for crossing right of way, January 11, 1899 5396
Bids on bridge sub and superstructure for, opened and referred to Committee on Engineering, May 10, 1899 5696
Bids above referred to tabulated, May 10, 1899 5698
Report on same, May 24, 1899 5817
Report of Committee on Finance approving bond of The Toledo Bridge Company on bridge contract for, May 31, 1899 5821
Agreement with The Toledo Bridge Company for bridge sub and superstructure for, May 31, 1899 5821
Report of Chief Engineer transmitting joint certificate covering capitalization of bridge for, for repairs and maintenance, June 7, 1899 5850
Certificate of engineers determining capitalization for, for maintenance and repairs for bridge, June 7, 1899 5850

Bids—
Atchison, Topeka and Santa Fe Railroad Company—
Majority and minority reports of Committee on Engineering in reference to, on asphalt filling between bridge counterweights of, at Lemont, October 4, 1899 6059
Belt Railway Company of Chicago, The, and Chicago and Western Indiana Railroad Company—
On bridge sub and superstructure for, opened and referred to Committee on Engineering, May 10, 1899 5695
Bids above referred to tabulated, May 10, 1899 5698
Report on same, May 24, 1899 5817
Cass Street, Joliet, Illinois—
On bridge sub and superstructure for, opened and referred to Committee on Engineering, March 17, 1899 5576
Bids above referred to tabulated, March 17, 1899 5578
Report on same, March 29, 1899 5598
Communication from The Toledo Bridge Company in reference to bid on, referred to Committee on Engineering, March 17, 1899 5576
Report on same, March 29, 1899 5598
Communication from The Toledo Bridge Company asking return of check in consideration of waiver of claims on account of bridge bid for, March 29, 1899 5598
Chicago and Western Indiana Railroad Company and The Belt Railway Co. of Chicago—
On bridge sub and superstructure for, opened and referred to Committee on Engineering, May 10, 1899 5696
Bids above referred to tabulated, May 10, 1899 5698
Report on same, May 24, 1899 5817
Chicago, Rock Island and Pacific Railway Company—
On bridge superstructure for, opened May 31, 1899 5840
Bids above referred to tabulated, May 31, 1899 5841
Contract for superstructure for, awarded to Chicago Bridge and Iron Co., May 31, 1899 5840
Chicago Terminal Transfer Railway Company—
Reports (majority and minority) of Committee on Engineering in reference to postponement of opening of bids for bridge sub and superstructure near Taylor Street, April 5, 1899 5604
On bridge sub and superstructure for, near Taylor Street, opened and referred to Committee on Engineering, April 26, 1899 5664
Bids above referred to tabulated, April 26, 1899 ..... A5665
Report on same, May 3, 1899 5672
Jefferson Street, Joliet, Illinois—
On bridge sub and superstructure for, opened and referred to Committee on Engineering, March 17, 1899 5576
Bids above referred to tabulated, March 17, 1899 5578
Report on same, March 29, 1899 5598
Communication from The Toledo Bridge Company in reference to bid on, referred to Committee on Engineering, March 17, 1899 5576
Report on same, March 29, 1899 5598
Communication from The Toledo Bridge Company asking return of check in consideration of waiver of claims on account of bridge bid for, March 29, 1899 5598

Bids—
Taylor Street—
Reports (majority and minority) of Committee on Engineering in reference to postponement of opening of bids for bridge sub and superstructure, April 5, 1899 5604
On bridge sub and superstructure for, opened and referred to Committee on Engineering, April 26, 1899 5664
Bids above referred to tabulated, April 26, 1899 ..... A5665
Report on same, May 3, 1899 5672
Tow-Path Bridge crossing River Diversion—
On superstructure for, opened and referred to Committee on Engineering, September 20, 1899 6033
Bids above referred to tabulated, September 20, 1899 6034
Report on same, September 26, 1899 6054
Water Power—
Order directing modification of proposals received for development of, August 23, 1899 6010
On development and lease of, opened and referred to Committee on Engineering, August 23, 1899 6011
Communication from Economy Light and Power Company asking return of check deposited with bid for development and lease of, referred to Committee on Engineering with power to act, September 6, 1899 602
Communication from Clarence Buckingham recalling bid for development and lease of, November 8, 1899 6117
Blount, Fred M., Treasurer—(*See Treasury Department.*)
Board Meetings—
Discontinuance of, on Saturday, January 25, 1899 5442
Report of Committee on Rules in reference to having, every Wednesday, May 10, 1899 5696
President authorized to postpone, during Fall Festival Days, October 4, 1899 6061
Boldenweck, William, President—(*See President William Boldenweck.*)
Bonds (Official)—
Reddick, James, Report of Committee on Finance cancelling bond of, May 17, 1899 ... 5778
Bonds (Security)—
Order directing payment of semi-annual interest due May 1, 1899, on 1st issue of, April 19, 1899 5547
Order directing payment maturing bonds of 3rd issue and semi-annual interest on 2nd, 3rd, 4th, 5th, 6th, 7th and 8th issues, June 28, 1899 5910
Order directing payment of maturing bonds of first issue and semi-annual interest due November 1, 1899, on said issue, October 25, 1899 6090
Report of Committee on Finance transmitting ordinance for the issuance of $1,000,000 bonds, December 20, 1899 6192
Ordinance above referred to, December 20, 1899 6193
Order directing payment maturing bonds of 2d, 4th, 5th and 6th issues and semi-annual interest on 2d, 3d, 4th, 5th, 6th, 7th and 8th issues, December 20, 1899 6194
Bonds (Surety)—
Carnegie Steel Company, Limited—
Report of Chief Engineer transmitting communication from, asking release of bond on contract for bridge superstructure of A., T. & S. F. Ry. Co. on Section G, referred to Committee on Engineering, January 25, 1899 5440
Report on same, April 12, 1899 5628
Report of Chief Engineer transmitting communication from, asking release of bond on contract for superstructure for A., T. & S. F. Ry. Co. bridge near east end Section G, referred to Committee on Engineering, March 17, 1899 5574
Report on same, April 12, 1899 5628
Report of Committee on Finance approving reduced bond of, on contract for superstructure of A., T. & S. F. Ry. Co. bridge near east end of Section G, May 17, 1899 5778
Communications from The City Trust, Safe Deposit and Surety Company of Philadelphia in reference to release of bonds of, on contracts for superstructures of A., T. & S. F. Ry. Co. bridges at west end of Section N and on Section 8, referred to Committee on Finance, July 12, 1899 5923
Report on same, July 26, 1899 5948

Bonds (Surety)—

Carnegie Steel Company, Limited— Page

Report of Committee on Finance approving reduced bonds of, on contracts for superstructures of A., T. & S. F. Ry. Co. bridges crossing Main Channel at west end of Section N and Section 8, September 6, 1899 6020

Chicago Bridge and Iron Company—

Report of Committee on Finance approving bond of, on contract for Van Buren Street approach span, January 11, 1899 5408

Report of Committee on Finance approving bond of, on contract for Taylor Street bridge, May 10, 1899 5679

Report of Committee on Finance approving bond of, on contract for superstructure for C., R. I. & P. Ry. Co. bridge, June 7, 1899 5851

Chicago Star Construction and Dredging Company—

Report of Joint Committee on Judiciary and Finance reducing bond of, on contract for substructure Kedzie Avenue bridge, January 18, 1899 5431

Communication from The City Trust, Safe Deposit and Surety Company of Philadelphia in reference to release of bond of, on contract for substructure of Kedzie Avenue bridge on Section N, referred to Joint Committee on Finance and Engineering, March 22, 1899 5585

Christie & Lowe—

Communication from, requesting release of bonds on contracts for Sections I and K, referred to Joint Committee on Finance and Engineering, February 15, 1899 5472

Report on same, March 23, 1899 5590

Gahan & Byrne—

Communication from, in reference to release of bond on contract for Section F, referred to Committee on Finance, January 25, 1899 5442

Report on same, February 1, 1899 5449

Report of Chief Engineer transmitting communication from The City Trust, Safe Deposit and Surety Company of Philadelphia for release of bond of, on contract for Section F, referred to Committee on Engineering, March 17, 1899 5574

Report on same, April 12, 1899 5627

Report of Committee on Finance approving reduced bond of, for $25,000, on contract for Section 18, May 3, 1899 5670

Griffiths & McDermott—

Report of Committee on Finance in reference to release of bond of, on contract for substructure of Lockport Highway bridge crossing River Diversion on Section 16, November 28, 1899 6143

Joliet Bridge and Iron Company, The—

Report of Committee on Finance approving bond of, on contract for superstructure for Tow-path bridge crossing River Diversion, October 4, 1899 6059

King Bridge Company, The—

Communication from The City Trust, Safe Deposit and Surety Company of Philadelphia in reference to release of bond of, on contract for superstructure of Kedzie Avenue bridge, referred to Committee on Finance, July 12, 1899 5923

Report on same, August 2, 1899 5970

Massillon Bridge Company—Communication from, asking release of bond on contract for bridge superstructure across Desplaines River of Summit and Lyons Highway, referred to Joint Committee on Finance and Judiciary, January 11, 1899 5422

Report of Committee on Finance on same, August 16, 1899 5987

McArthur Bros. Company—

Consent of The City Trust, Safe Deposit and Surety Company of Philadelphia to assignment by The Scherzer Rolling Lift Bridge Company to, of contract for substructure of eight-track bridge, July 12, 1899 5925

McArthur Bros. Company and Winston & Co.—

Report of Committee on Judiciary reducing bonds of, on contracts for substructure of C., M. & N. R. R. Co. and A., T. & S. F. Ry. Co. (west end Section N) bridges, January 18, 1899 5431

Report of Committee on Finance approving reduced bonds of, on contracts for substructure of C., M. & N. R. R. Co. bridge near east end of Section N and A., T. & S. F. Ry. Co. bridge at west end of Section N, April 19, 1899 5645

Pennsylvania Steel Company—

Report of Committee on Finance approving bond of, on contract for C. T. T. Ry. Co. bridge near Taylor street, May 17, 1899 5779

Bonds (Surety)—
Sackley & Peterson— Page
Report of Committee on Finance releasing bond of, on contract for substructure of Willow Springs Highway bridge across Main Channel, December 20, 1899..... 6192
Scherzer Rolling Lift Bridge Company, The—
Consent of The City Trust, Safe Deposit and Surety Company of Philadelphia to assignment by, to McArthur Bros. Co. of contract for substructure of eight-track bridge, July 12, 1899..... 5925
Strobel, C. L —
Communication from The City Trust, Safe Deposit and Surety Company of Philadelphia in reference to release of bonds of, on contracts for superstructures for Summit and Lyons, Willow Springs, Lemont and Romeoville Highway bridges, referred to Committee on Finance, October 18, 1899..... 6035
Sullivan, Daniel—
Report of Committee on Finance in reference to release of bond of, on contract for building culverts and grading Romeoville highway, August 16, 1899..... 5987
Toledo Bridge Company, The—
Communication from The City Trust, Safe Deposit and Surety Company of Philadelphia in reference to release of bond of, on contract for superstructure for C., M. & N. R. R. Co. bridge near east end of Section N, referred to Joint Committee on Finance and Engineering, March 22, 1899..... 5585
Report on same, March 29, 1899..... 5595
Report of Committee on Finance approving bond of, on contract for Belt Ry. Co. of Chicago and Chicago & Western Indiana R. R. Co. bridge, May 21, 1899..... 5821
Wagner, J. G.—Report of Committee on Judiciary releasing sureties on bond of, for contract for superstructure of E., J. & E. Ry. Co. bridge, January 18, 1899..... 5430
Wagner, J. G., Company, The—
Report of Committee on Finance approving bonds of, on contracts for Cass and Jefferson Streets bridges, April 12, 1899..... 5611
Western Dredging and Improvement Company—
Report of Committee on Finance in reference to reduction of bond of, on contract for Section C, November 1, 1899..... 6108
Williams, Benezette—Report of Committee on Judiciary releasing sureties on bond of, for contract for substructure of Southwest Boulevard bridge, January 18, 1899 5430
Wright, Meysenburg, Sinclair & Carry—
Report of Committee on Engineering releasing surety on bond of, on contract for Section 15, May 24, 1899..... 5815
Report of Committee on Finance in reference to release of bond of, on contract for Section 15, July 19, 1899..... 5988

Braden, Joseph C.—
Appointed member of special committee for conducting conferences on behalf of Sanitary District in reference to organization of sewage district from Seventy-fifth Street south to Eighty-seventh Street, February 1, 1899..... 5446
Appointed member of Special Committee for removal of dams at Henry and Copperas Creek, October 25, 1899..... 6087

Bridges—
Atchison, Topeka and Santa Fe Railway Company—
Chief Engineer's final certificate for McArthur Bros. Company and Winston & Co. on contract for substructure at west end of Section N, referred to Committee on Engineering, January 4, 1899..... 5390
Report on same, January 11, 1899..... 5406
Final certificate above referred to printed in full, January 11, 1899..... 5407
Chief Engineer's final certificate for Penn Bridge Company on contract for superstructure across Desplaines River on Section 8, referred to Committee on Engineering, January 4, 1899..... 5391
Report on same, January 11, 1899..... 5406
Final certificate above referred to printed in full, January 11, 1899..... 5407
Chief Engineer's final certificate for Carnegie Steel Company, Ltd., on contract for superstructure near east end of Section G, referred to Committee on Engineering, February 8, 1899..... 5457
Report on same presented and recommitted to said Committee, February 16, 1899..... 5476
Report on same, April 12, 1899..... 5626
Final certificate above referred to printed in full, April 12, 1899..... 5627

Bridges—

Atchison, Topeka and Santa Fe Railway Company— Page

Report of Committee on Judiciary reducing bond of McArthur Bros. Company and Winston & Co. on contract for substructure at west end of Section N, January 18, 1899 5431

Report of Chief Engineer transmitting communication from Carnegie Steel Company, Ltd., for release of bond on contract for superstructure on Section G, referred to Committee on Engineering, January 25, 1899 5440

Report on same, April 12, 1899 5628

Report of Chief Engineer transmitting communication from Carnegie Steel Company, Ltd., for release of bond on contract for superstructure near east end Section G, referred to Committee on Engineering, March 17, 1899 5574

Report on same, April 12, 1899 5628

Report of Committee on Finance approving reduced bond of McArthur Bros. Company and Winston & Co. on contract for substructure of, at west end of Section N, April 19, 1899 5645

Report of Committee on Finance approving reduced bond of Carnegie Steel Company, Ltd., on contract for superstructure of, near east end of Section G, May 17, 1899 5778

Report of Committee on Engineering in reference to final certificate for Carnegie Steel Company, Ltd., on superstructure for, at west end of Section N, June 14, 1899 5875

Final certificate above referred to, June 14, 1899 5875

Report of Chief Engineer fixing amount of forfeiture on contract with Carnegie Steel Company, Ltd., for superstructure of, across Main Channel on Section 8, referred to Committee on Engineering, June 11, 1899 5882

Report on same, June 28, 1899 5908

Report of Committee on Engineering in reference to final certificate for Carnegie Steel Company, Ltd., on superstructure for, across Main Channel on Section 8, June 28, 1899 5908

Final certificate above referred to, June 28, 1899 5909

Report of Chief Engineer in reference to payment by A., T. & S. F. Ry. Co. for one-half cost superstructure for, across Desplaines River on Section 8, July 5, 1899 5912

Communications from The City Trust, Safe Deposit and Surety Company of Philadelphia in reference to release of bonds of Carnegie Steel Company, Ltd., on contracts for superstructures for, at west end of Section N and on Section 8, referred to Committee on Finance, July 12, 1899 5923

Report on same, July 26, 1899 5948

Report of Committee on Finance approving reduced bonds of Carnegie Steel Company, Ltd., on contracts for superstructures of, crossing Main Channel at west end of Section N, and Section 8, September 6, 1899 6020

Majority and minority reports of Committee on Engineering in reference to bids on asphalt filling between counterweights of, at Lemont, October 4, 1899 6059

Atchison, Topeka and Santa Fe Railway Company, et al. ("Santa Fe System")—

Report of Clerk transmitting supplemental agreement with, in reference to movable bridges, January 25, 1899 5435

Supplemental agreement in reference to movable bridges, January 25, 1899 5435

Report of Chief Engineer transmitting joint certificate covering capitalization of bridge at west end of Section N for, for repairs and maintenance, June 14, 1899 5876

Certificate of engineers determining capitalization for, for maintenance and repairs for bridge at west end of Section N, June 14, 1899 5876

Belt Railway Company of Chicago and Chicago and Western Indiana Railroad Company—

Report of Clerk transmitting agreement with, for crossing right of way, January 11, 1899 5396

Agreement for crossing right of way, January 11, 1899 5396

Bids on sub and superstructure for, opened and referred to Committee on Engineering, May 10, 1899 5696

Bids above referred to tabulated, May 10, 1899 5698

Report on same, May 24, 1899 5817

Report of Committee on Finance approving bond of The Toledo Bridge Company on contract for, May 31, 1899 5821

Agreement with The Toledo Bridge Company for sub and superstructure for, May 31, 1899 5821

Bridges—
Belt Railway Company of Chicago and Chicago and Western Indiana Railroad Company— Page
Report of Chief Engineer transmitting joint certificate covering capitalization for, for repairs and maintenance, June 7, 1899 5850
Certificate of engineers determining capitalization for, for maintenance and repairs, June 7, 1899 5850
Campbell Avenue—(*See Eight-Track.*)
Canal Street—
Report of Committee on Engineering in reference to agreement with City of Chicago for construction of, August 30, 1899 6015
Report of Clerk transmitting executed agreement with City of Chicago for construction of bridge at, September 26, 1899 6037
Agreement above referred to, September 26, 1899 6037
Cass Street, Joliet, Illinois—
Bids on sub and superstructure for, opened and referred to Committee on Engineering, March 17, 1899 5576
Bids above referred to tabulated, March 17, 1899 5578
Report on same, March 29, 1899 5598
Communication from The Toledo Bridge Company in reference to bid on, referred to Committee on Engineering, March 17, 1899 5576
Report on same, March 29, 1899 5598
Communication from The Toledo Bridge Company asking return of check in consideration of waiver of claims on account of bid for, March 29, 1899 5598
Report of Committee on Finance approving bond of The J. G. Wagner Co. on contract for, April 12, 1899 5611
Agreement with The J. G. Wagner Co. for sub and superstructure for, April 12, 1899 5624
Report of Committee on Engineering transmitting ordinance accepting ordinance passed by City Council of Joliet relating to the construction of, October 18, 1899 6080
Ordinance accepting ordinance passed by City Council of Joliet relating to the construction of, October 18, 1899 6081
Ordinance passed by City Council of Joliet relating to the construction of, October 18, 1899 6081
Report of Committee on Engineering transmitting ordinance accepting amended ordinance passed by City Council of Joliet relating to the construction of, December 13, 1899 6183
Ordinance accepting amended ordinance passed by City Council of Joliet relating to the construction of, December 13, 1899 6184
Amended ordinance passed by City Council of Joliet relating to repair of, December 13, 1899 6184
Chicago Junction Railway Company—
Report of Committee on Engineering in reference to extension of time on supplemental agreement for movable bridge with, January 11, 1899 5408
Report of Clerk transmitting supplemental agreement with, in reference to extension of time on supplemental agreement for movable bridge, February 1, 1899 5448
Supplemental agreement in reference to extension of time on supplemental agreement for movable bridge, February 1, 1899 5448
Chicago, Madison and Northern Railroad Company—
Chief Engineer's final certificate for McArthur Bros. Company and Winston & Co., on contract for substructure near east end of Section N, across Kedzie Avenue, referred to Committee on Engineering, February 8, 1899 5457
Report on same, February 16, 1899 5476
Final certificate above referred to printed in full, February 16, 1899 5477
Report of Committee on Judiciary reducing bond of McArthur Bros. Company and Winston & Co., on contract for substructure for, January 18, 1899 5431
Communication from The City Trust, Safe Deposit and Surety Company of Philadelphia in reference to release of bond of The Toledo Bridge Company on contract for superstructure for, near east end Section N, referred to Joint Committee on Finance and Engineering, March 22, 1899 5585
Report on same, March 29, 1899 5595

Bridges—

Chicago, Madison & Northern Railroad Company— Page

Report of Committee on Finance approving reduced bond of McArthur Bros. Co. and Winston & Co. on contract for substructure of, near east end of Section N, April 19, 1899 5645

Report of Committee on Engineering in reference to final certificate for The Toledo Bridge Company on superstructure for, May 24, 1899 5813

Final certificate above referred to, May 24, 1899 5813

Report of Committee on Engineering in reference to payment of indemnity to, for repairs and maintenance of bridges of, May 24, 1899 5814

Certificate of engineers determining amount of capitalization to be paid to, for repairs and maintenance of bridges of, May 24, 1899 5815

Chicago, Rock Island and Pacific Railway Company—

Order directing President and Clerk to deposit certain money and execute supplemental agreement with, for bridge construction at Joliet, Ill., March 22, 1899 5585

Bids on superstructure for, opened May 31, 1899 5840

Bids above referred to tabulated May 31, 1899 5841

Contract for superstructure for, awarded to Chicago Bridge and Iron Company, May 31, 1899 5840

Report of Committee on Finance approving bond of Chicago Bridge and Iron Company on superstructure for, June 7, 1899 5851

Agreement with Chicago Bridge and Iron Company for superstructure for, June 7, 1899 5851

Chicago, Santa Fe & California Railway Company—

Report of Chief Engineer transmitting joint certificate covering capitalization of bridge crossing Main Channel on Section 8 at Lemont for, for repairs and maintenance, August 5, 1899 5976

Certificate above referred to, August 5, 1899 5976

Chicago Terminal Transfer Railway Company—

Report of Chief Engineer in reference to partial payment to Wisconsin Bridge and Iron Company on bridge superstructure of, across Desplaines River near west end of Section E, February 1, 1899 5448

Message from President transmitting letters from Secretary of War in reference to permits for construction of temporary and permanent bridges for, etc., March 22, 1899 5581

Letters above referred to printed in full, March 22, 1899 5582

Reports (majority and minority) Committee on Engineering in reference to postponement of opening of bids for sub and superstructure near Taylor Street, April 5, 1899 5604

Bids on sub and superstructure for, near Taylor Street, opened and referred to Committee on Engineering, April 26, 1899 5664

Bids above referred to tabulated, April 26, 1899 ..... A5665

Report on same, May 3, 1899 5672

Report of Committee on Finance approving bond of Pennsylvania Steel Company on contract for, near Taylor Street, May 17, 1899 5779

Agreement with Pennsylvania Steel Company for sub and superstructure for, May 17, 1899 5779

Report of Committee on Engineering in reference to employment of R. W. Hunt & Co. on mill and shop inspection of, near Taylor Street, October 12, 1899 6074

Report of Committee on Engineering in reference to final certificate for Wisconsin Bridge and Iron Company on superstructure for, crossing Desplaines River near west end of Section E, November 22, 1899 6130

Final certificate above referred to, November 22, 1899 6130

Final certificate for Heldmaier & Neu on bridge substructure for, over Desplaines River on Section E, December 13, 1899 6182

Report of Chief Engineer in reference to additional payment to Heldmaier & Neu on contract for bridge substructure for, over Desplaines River on Section E, December 20, 1899 6191

Chicago and Western Indiana Railroad Company, and Belt Railway Company of Chicago—(*See Belt Railway Company of Chicago and Chicago and Western Indiana Railroad Company.*)

Bridges—
Eight-Track— Page
Report of Committee on Engineering in reference to agreement with A., T. & S. F. Ry. Co. for temporary occupation of right of way for use of, May 31, 1899 5838
Report of Clerk transmitting executed agreement above referred to, July 19, 1899 5933
Agreement above referred to printed in full, July 19, 1899 5933
Report of Committee on Engineering in reference to assignment by The Scherzer Rolling Lift Bridge Company to McArthur Bros. Company of contract for substructure of, July 22, 1899 5923
Report of Attorney transmitting said assignment, consent of The City Trust, Safe Deposit and Surety Company of Philadelphia to said assignment, consent of Sanitary District, waiver by assignor of claims for damages, and acceptance by assignee of said assignment, July 12, 1899 5924
Consent of The City Trust, Safe Deposit and Surety Company of Philadelphia to said assignment, July 12, 1899 5925
Consent of Sanitary District to said assignment, July 12, 1899 5925
Waiver of all claims by said assignor arising out of said contract, July 12, 1899 .. 5926
Acceptance by assignee of said assignment, July 12, 1899 5926
Report of Committee on Engineering in reference to readjustment of prices on contract with McArthur Bros. Company for substructure for, July 12, 1899 5927
Order of Chief Engineer readjusting prices on contract for substructure for, July 12, 1899 5929
Order directing President to purchase cement for use of substructure for, July 19, 1899 .. 5941
Message from President transmitting agreement with Thomas Moulding Company for purchase of cement for use of substructure for, July 26, 1899 5944
Agreement above referred to printed in full, July 26, 1899 5945
Order directing President and Clerk to arrange for extension of time for completing, on contracts with C. J. Ry. Co., C. T. T. R. R. Co. and P., C., C. & St. L. Ry., December 13, 1899 6185
Report of Chief Engineer in reference to payment for force account work employed by McArthur Bros. Co. for District at, December 27, 1899 6220
Elgin, Joliet and Eastern Railway Company—Report of Committee on Judiciary releasing sureties on bond of J. G. Wagner on contract for superstructure for, January 18, 1899 5430
Jackson Street, Joliet, Illinois—
Report of Committee on Engineering transmitting ordinance accepting ordinance passed by City Council of Joliet relating to repair of, October 18, 1899 6080
Ordinance accepting ordinance passed by City Council of Joliet relating to repair of, October 18, 1899 6081
Ordinance passed by City Council of Joliet relating to repair of, October 18, 1899 6081
Report of Committee on Engineering transmitting ordinance accepting amended ordinance passed by City Council of Joliet relating to repair of, December 18, 1899 6183
Ordinance accepting amended ordinance passed by City Council of Joliet relating to repair of, December 13, 1899 6184
Amended ordinance passed by City Council of Joliet relating to repair of, December 13, 1899 6184
Jefferson Street, Joliet, Illinois—
Report of Clerk transmitting executed agreement with Joliet Railroad Company for temporary crossing Desplaines River at, March 1, 1899 5499
Agreement above referred to, March 1, 1899 5499
Bids on sub and superstructure for, opened and referred to Committee on Engineering, March 17, 1899 5576
Bids above referred to tabulated, March 17, 1899 5578
Report on same, March 29, 1899 5598
Communication from The Toledo Bridge Company in reference to bid on, referred to Committee on Engineering, March 17, 1899 5576
Report on same, March 29, 1899 5598
Communication from The Toledo Bridge Company asking return of check in consideration of waiver of claims on account of bid for, March 29, 1899 5598
Report of Committee on Finance approving bond of The J. G. Wagner Company on contract for, April 12, 1899 5611
Agreement with the J. G. Wagner Company for sub and superstructure for, April 12, 1899 5612
Report of Committee on Engineering transmitting ordinance accepting ordinance passed by City Council of Joliet relating to the construction of, October 18, 1899 6080

Bridges—

Jefferson Street Joliet, Illinois— Page

Ordinance accepting ordinance passed by City Council of Joliet relating to the construction of, October 18, 1899 6081

Ordinance passed by City Council of Joliet relating to the construction of, October 18, 1899 6081

Report of Committee on Engineering transmitting ordinance accepting amended ordinance passed by City Council of Joliet relating to the construction of, December 18, 1899 6183

Ordinance accepting amended ordinance passed by City Council of Joliet relating to the construction of, December 18, 1899 6186

Amended ordinance passed by City Council of Joliet relating to repair of, December 18, 1899 6184

Kedzie Avenue—

Report of Joint Committee on Judiciary and Finance, reducing bond of Chicago Star Construction and Dredging Company on contract for substructure for, on Section N, January 18, 1899 5431

Communication from The City Trust, Safe Deposit and Surety Company of Philadelphia, in reference to release of bond of Chicago Star Construction and Dredging Company on contract for substructure for, on Section N, referred to Joint Committee on Finance and Engineering, March 22, 1899 5585

Report of Committee on Engineering in reference to final certificate for The King Bridge Company on superstructure for, May 24, 1899 5813

Final certificate above referred to, May 24, 1899 5813

Communication from The City Trust, Safe Deposit and Surety Company of Philadelphia in reference to release of bond of The King Bridge Company on contract for superstructure for, referred to Committee on Finance, July 12, 1899 5928

Report on same, August 2, 1899 5970

Lemont Highway—

Report of Chief Engineer in reference to payment of Sackley & Peterson on contract for bridge substructure across Main Channel of, referred to Committee on Engineering, February 8, 1899 5457

Report on same, February 16, 1899 5474

Report of Chief Engineer above referred to printed in full, February 16, 1899 5475

Report of Committee on Engineering in reference to final certificate for C. L. Strobel on bridge superstructure for, April 5, 1899 5603

Final certificate above referred to printed in full, April 5, 1899 5603

Report of Committee on Engineering in reference to final certificate for C. L. Strobel on bridge superstructure for, July 19, 1899 5939

Final certificate above referred to printed in full, July 19, 1899 5940

Communication from The City Trust, Safe Deposit and Surety Company of Philadelphia in reference to release of bond of C. L. Strobel on contract for superstructure for, referred to Committee on Finance, October 8, 1899 6085

Lockport Highway—

Chief Engineer's final certificate for Griffiths & McDermott on contract for substructure of, crossing River Diversion on Section 16, referred to Committee on Engineering, May 3, 1899 5669

Report on same, May 10, 1899 5695

Final certificate above referred to printed in full, May 10, 1899 5695

Report of Committee on Engineering in reference to final certificate for Wisconsin Bridge and Iron Co. on bridge superstructure for, August 2, 1899 5970

Final certificate above referred to printed in full, August 2, 1899 5971

Report of Committee on Finance in reference to release of bond of Griffiths & McDermott on contract for bridge substructure of, crossing River Diversion on Section 16, November 28, 1899 6143

Lyons and Summit Highway—(*See Summit and Lyons Highway*)

Pan Handle—(*See Eight-Track*)

Romeoville Highway— Page

Report of Committee on Engineering transmitting ordinance for construction of, May 31, 1899 5836

Ordinance above referred to, May 31, 1899 5836

Report of Committee on Finance in reference to release of bond of Daniel Sullivan on contract for building culverts and grading for, August 16, 1899 5987

Bridges—
Romeoville Highway— Page
Acting Chief Engineer's final certificate on bridge superstructure of, crossing Main Channel for C. L. Strobel, September 13, 1899 6029
Report of Committee on Engineering on same, September 13, 1899 6028
Communication from The City Trust, Safe Deposit and Surety Company of Philadelphia in reference to release of bond of C. L. Strobel on contract for superstructure for, referred to Committee on Finance, October 18, 1899 6085
Chief Engineer's final certificate on bridge substructure of, crossing Main Channel for Heldmaier & Neu, November 1, 1899 6109
Report of Committee on Engineering on same, November 1, 1899 6108
Sag, Illinois, over Illinois and Michigan Canal—Message from President in reference to removal of, October 18, 1899 6077
Southwest Boulevard—
Report of Committee on Judiciary releasing sureties on bond of Benezette Williams on contract for substructure for, January 18, 1899 5430
Report of Commmittee on Finance in reference to payment on contract for superstructure for, February 16, 1899 5474
Southwest Boulevard and Western Avenue—
Report of Chief Engineer recommending payment to The J. G. Wagner Company on account of contract for superstructure for, May 31, 1899 5831
Report of Committee on Engineering in reference to final certificate for The J. G. Wagner Company on superstructure for, June 7, 1899 5869
Final certificate above referred to, June 7, 1899 5870
Summit and Lyons Highway—
Report of Committee on Engineering in reference to final certificate for McArthur Bros. Company and Winston & Co. on substructure for, May 24, 1899 5813
Final certificate above referred to, May 24, 1899 5814
Report of Committee on Engineering in reference to final certificate for C. L. Strobel on bridge superstructure for, July 19, 1899 5939
Final certificate above referred to printed in full, July 19, 1899 5941
Communication from Massillon Bridge Co. asking release of bond on contract for superstructure across Desplaines River of, referred to Joint Committee on Finance and Judiciary, January 11, 1899 5422
Report of Committee on Finance on same, August 16, 1899 5987
Communication from The City Trust, Safe Deposit and Surety Company of Philadelphia in reference to release of bond of C. L. Strobel on contract for superstructure for, referred to Committee on Finance, October 18, 1899 6085
Taylor Street—
Message from President transmitting letters from Secretary of War in reference to permits for construction of permanent bridge at, etc., March 22, 1899 5581
Letters above referred to printed in full, March 22, 1899 5582
Reports (majority and minority) of Committee on Engineering in reference to postponement of opening of bids for sub and superstructure, April 5, 1899 5604
Bids on sub and superstructure for, opened and referred to Committee on Engineering, April 26, 1899 5664
Bids above referred to tabulated, April 26, 1899 ..... A5665
Report on same, May 3, 1899 5672
Report of Committee on Finance approving bond of Chicago Bridge and Iron Company on contract for, May 10, 1899 5679
Agreement with Chicago Bridge and Iron Company for sub and superstructure for, May 10, 1899 5680
Thirty-first Street—(*See Eight-Track.*)
Tow-Path Crossing River Diversion—
Bids on superstructure for, opened and referred to Committee on Engineering, September 20, 1899 6033
Bids above referred to tabulated, September 20, 1899 6034
Report on same, September 26, 1899 6054
Report of Committee on Finance approving bond of The Joliet Bridge and Iron Company on contract for superstructure for, October 4, 1899 6059
Report of Clerk transmitting executed agreement with The Joliet Bridge and Iron Company for superstructure for, October 12, 1899 6066
Agreement above referred to, October 12, 1899 6066

Bridges— Page
Twenty-sixth Street—(*See Atchison, Topeka and Santa Fe Railway Company.*)
Western Avenue (Pontoon), Report of Committee on Engineering in reference to agreement with P. Petersen for removal of, May 24, 1899 5812
Western Avenue and Southwest Boulevard—
Report of Chief Engineer recommending payment to The J. G. Wagner Company on account of contract for superstructure of, May 31, 1899 5821
Report of Committee on Engineering in reference to final certificate for The J. G. Wagner Company on superstructure for, June 7, 1899 5869
Final certificate above referred to, June 7, 1899 5870
Western Indiana Railroad Company—(*See Belt Railway Company of Chicago and Chicago and Western Indiana Railroad Company*)
Willow Springs Highway—
Chief Engineer's final certificate for Sackley & Peterson on contract for substructure crossing Main Channel, referred to Committee on Engineering, January 4, 1899 5391
Report on same, January 14, 1899 5424
Final certificate above referred to printed in full, January 14, 1899 5424
Report of Committee on Engineering in reference to final certificate for C. L. Strobel on bridge superstructure for, April 5, 1899 5603
Final certificate above referred to printed in full, April 5, 1899 5604
Report of Committee on Engineering in reference to final certificate for C. L. Strobel on bridge superstructure for, July 19, 1899 5989
Final certificate above referred to printed in full, July 19, 1899 5640
Communication from The City Trust, Safe Deposit and Surety Company of Philadelphia in reference to release of bond of C. L. Strobel on contract for superstructure for, referred to Committee on Finance, October 18, 1899 6085
Report of Committee on Finance releasing bond of Sackley & Peterson on contract for bridge substructure of, across Main Channel, December 20, 1899 6192
Wire Mills Road—
Chief Engineer's final certificate for Hayes Bros. on contract for substructure of, crossing River Diversion on Section 16, referred to Committee on Engineering May 3, 1899 5669
Report on same, May 10, 1899 5695
Final certificate above referred to printed in full, May 10, 1899 5695
Report of Committee on Engineering in reference to remittance and waiver of time penalty on contract for superstructure of, August 16, 1899 5988
Chief Engineer's final certificate on bridge superstructure of, crossing River Diversion, for Wisconsin Bridge and Iron Company, September 13, 1899 6029
Report of Committee on Engineering on same, September 13, 1899 6028
Bridges and Bridge Construction, Engineer of—
Report of Committee on Engineering on employment of W. M. Hughes to take charge of the bridge construction, May 3, 1899 5672
Report of Committee on Rules in reference to title of, May 10, 1899 5696
Buckingham, Clarence—
Bid of, on development and lease of water-power opened and referred to Committee on Engineering, August 23, 1899 6011
Communication from, recalling bid for development and lease of water-power, November 8, 1899 6117
Bush, John E—
Report of Joint Committee on Finance and Engineering on payment to, for certain land in accordance with court decree, June 28, 1899 5905
By-Pass Along Chicago River—
Report of Chief Engineer transmitting bill of sale from American Bridge Works to Griffiths & McDermott for steel in, and asking authority of a payment of $32,000.00 on account, March 23, 1899 5589
Message from President transmitting permit from Acting Secretary of War for construction of temporary coffer-dam for, between Adams and Van Buren streets, May 17, 1899 5702
Order directing payment of semi-annual rental due May 1, 1899, to Pennsylvania Company under agreement for, April 19, 1899 5647
Report of Committee on Engineering transmitting agreements with The Metropolitan West Side Elevated Railway Company, and with Pennsylvania Company and said Elevated Railway Company for, June 7, 1899 5859

By-Pass Along Chicago River— Page
Agreement with The Metropolitan West Side Elevated Railway Company for, June 7, 1899 5860
Agreement with Pennsylvania Company, and The Metropolitan West Side Elevated Railway Company for, June 7, 1899 5863
Order directing payment of annual rental due June 1, 1899, to The Chicago and Alton Railroad Company under agreement for, June 28, 1899 5910
Report of Committee on Engineering in reference to re-adjustment of prices on contract with Griffiths & McDermott for superstructure for, July 12, 1899 5927
Order of Chief Engineer re-adjusting prices on contract for superstructure for, July 12, 1899 5928
Order directing payment of semi-annual rental due November 1, 1899, to Pennsylvania Company, under agreement for, October 25, 1899 6091

CALLS FOR SPECIAL BOARD MEETINGS—
By President, March 23, 1899 5587
By President, May 3, 1899 5667
By Clerk, June 3, 1899 5854
By Clerk, August 5, 1899 5975
By Acting Clerk, August 17, 1899 5991
By Clerk, September 26, 1899 6085
By Clerk, November 28, 1899 6133

Campbell Avenue Bridge—(*See Eight-Track Bridge*)

Canal Commissioners, The—
Report of Committee on Judiciary in reference to claim of, for $212.25 against Sanitary District for damages and tolls, February 8, 1899 5459
Report of Committee on Engineering in reference to payment of sundry claims (for demurrage, etc., to boats) under agreement with, August 16, 1899 5989
Majority and minority reports of Committee on Engineering in reference to agreement with, for maintenance of "Summit Level," December 21, 1899 6107
Agreement above referred to, December 21, 1899 6199

Canal Street—
Report of Committee on Engineering in reference to agreement with City of Chicago for construction of bridge at, August 30, 1899 6015
Report of Clerk transmitting executed agreement with City of Chicago for construction of bridge at, September 26, 1899 6037
Agreement above referred to, September 26, 1899 6037

Capitalization Certificates of Engineers—
Atchison, Topeka and Santa Fe Railway Company et al, ("Santa Fe System")—
Determining amount to be paid to, for repairs and maintenance of bridge at west end of Section N, June 14, 1899 5876
Report of Chief Engineer transmitting same, June 14, 1899 5876
Belt Railway Company of Chicago and Chicago and Western Indiana Railroad Co.—
Determining amount to be paid to, for repairs and maintenance of bridge, June 7, 1899 5850
Report of Chief Engineer transmitting same, June 7, 1899 5850
Chicago, Madison and Northern Railroad Company—
Determining amount to be paid to, for repairs and maintenance of bridges, May 24, 1899 5815
Report of Committee on Engineering on same, May 24, 1899 5814
Chicago, Santa Fe & California Railway Company—
Determining amount to be paid to, for repairs and maintainence of bridge crossing Main Channel on Section 8 at Lemont, August 5, 1899 5976
Report of Chief Engineer transmitting same, August 5, 1899 5976

Carnegie Steel Company, Limited—
Chief Engineer's final certificate on superstructure of A., T. & S. F. Ry. Co. bridge near east end of Section G for, referred to Committee on Engineering, February 8, 1899 5457
Report on same presented and recommitted to said Committee, February 16, 1899 5476
Report on same, April 12, 1899 5626
Final certificate above referred to printed in full, April 12, 1899 5627

Carnegie Steel Company, Limited— Page
Report of Chief Engineer transmitting communication from, for release of bond on contract for superstructure A., T. & S. F. Ry. Co. bridge on Section G, referred to Committee on Engineering, January 25, 1899 5440
Report on same, April 12, 1899 5628
Report of Chief Engineer transmitting communication from, for release of bond on contract for superstructure for A., T. & S. F. Ry. Co. bridge near east end Section G, referred to Committee on Engineering, March 17, 1899 5574
Report on same, April 12, 1899 5628
Report of Committee on Finance approving reduced bond of, on contract for superstructure of A., T. & S. F. Ry. Co. bridge near east end of Section G, May 17, 1899 .. 5778
Report of Committee on Engineering in reference to final certificate for, on contract for superstructure of A., T. & S. F. Ry. Co. bridge at west end of Section N, June 14, 1899 5875
Final certificate above referred to, June 14, 1899 5875
Report of Chief Engineer fixing amount of forfeiture on contract with, for superstructure of A., T. & S. F. Ry. Co. bridge across Main Channel on Section 8, referred to Committee on Engineering, June 21, 1899 5882
Report on same, June 28, 1899 5908
Report of Committee on Engineering in reference to final ceritificate for, on contract for superstructure of A., T. & S. F. Ry. Co. bridge across Main Channel on Section 8, June 28, 1899 5908
Final certificate above referred to, June 28, 1899 5909
Communications from The City Trust, Safe Deposit and Surety Company of Philadelphia in reference to release of bonds of, on contracts for superstructures of A., T. & S. F. Ry. Co.'s bridges at West end of Section N and on Section 8, referred to Committee on Finance, July 12, 1899 5923
Report on same, July 26, 1899 5948
Report of Committee on Finance approving reduced bond of, on contracts for superstructures of A., T. & S. F. Ry. Co. bridges crossing Main Channel at west end of Section N, and Section 8, September 6, 1899 6020
Carroll, Timothy—
Communication from, in reference to purchase the police station building near Sag Bridge, referred to Committee on Finance, February 8, 1899 5429
Report on same, March 22, 1899 5584
Carter, Zina R.—
Appointed member of Special Committee for removal of dams at Henry and Copperas Creek, October 25, 1899 6087
Cass Street, Joliet, Illinois—
Bids on bridge sub and superstructure for, opened and referred to Committee on Engineering, March 17, 1899 5576
Bids above referred to tabulated March 17, 1899 5578
Report on same, March 29, 1899 5598
Communication from The Toledo Bridge Company in reference to bid on, referred to Committee on Engineering, March 17, 1899 5576
Report on same, March 29, 1899 5598
Communication from The Toledo Bridge Company asking return of check in consideration of waiver of claims on account of bridge bid for, March 29, 1899 5598
Report of Committee on Finance approving bond of The J. G. Wagner Company on bridge contract for, April 12, 1899 5611
Agreement with The J. G. Wagner Company for bridge sub and superstructure for, April 12, 1899 5628
Report of Committee on Engineering transmitting ordinance accepting ordinance passed by City Council of Joliet relating to the bridge construction at, October 18, 1899 6080
Ordinance accepting ordinance passed by City Council of Joliet relating to the bridge construction at, October 18, 1899 6081
Ordinance passed by City Council of Joliet relating to the bridge construction at, October 18, 1899 6081
Report of Committee on Engineering transmitting ordinance accepting amended ordinance passed by City Council of Joliet relating to the bridge construction at, December 13, 1899 6183
Ordinance accepting amended ordinance passed by City Council of Joliet relating to the bridge construction at, December 13, 1899 6184

Cass Street, Joliet, Illinois— Page
Amended ordinance passed by City Council of Joliet relating to the bridge construction at, December 13, 1899 6184
Caton, Arthur J.—
Report of Joint Committee on Finance and Engineering on payment to, for certain land, in accordance with court decree, June 28, 1899 5905
Cement—
Order directing President to purchase, for use of substructure for eight-track bridge, July 19, 1899 5941
Message from President transmitting agreement with Thomas Moulding Company for purchase of, for use of substructure of eight-track bridge, July 26, 1899 5944
Agreement above referred to printed in full, July 26, 1899 5945
Cement Testing Department—
Report of Committee on Engineering in reference to lease of quarters in Chicago from Security Deposit Co. for, August 2, 1899 ..... 597g
Chicago, City of—
Report of Committee on Engineering in reference to agreement with, for maintenance of pumping station south of Seventy-fifth Street, June 28, 1899 5907
Report of Committee on Engineering in reference to agreement with, for construction of bridge at Canal Street, August 30, 1899 6015
Report of Clerk transmitting executed agreement with, for construction of bridges at Canal street, September 26, 1899 6037
Agreement above referred to, September 26, 1899 6037
Chicago and Alton Railroad Company, The—
Order directing payment to, annual rental due June 1, 1899, under agreement for By-pass along Chicago River, June 28, 1899 5910
Chicago Bridge and Iron Company—
Report of Committee on Finance transmitting executed agreement with, for Van Buren street approach span, and approving bond on same, January 11, 1899 5408
Agreement above referred to, January 11, 1899 5409
Bids of, on sub and superstructure of Jefferson and Cass Street bridges opened and referred to Committee on Engineering, March 17, 1899 5576
Bids above referred to tabulated, March 17, 1899 5578
Report on same, March 29, 1899 5598
Bids of, on sub and superstructure of Chicago Terminal Transfer Railway Company and Taylor Street bridges opened and referred to Committee on Engineering, April 26, 1899 5664
Bids above referred to tabulated, April 26, 1899 ..... A5665
Report on same, May 3, 1899 5672
Report of Committee on Finance approving bond of, on contract for Taylor Street bridge, May 10, 1899 5679
Agreement for sub and superstructure for Taylor Street bridge, May 10, 1899 5680
Bid of, on sub and superstructure of Belt Railway Company of Chicago and Chicago and Western Indiana Railroad Company bridge opened and referred to Committee on Engineering, May 10, 1899 5696
Bid above referred to tabulated, May 10, 1899 5698
Report on same, May 24, 1899 5817
Bid of, on superstructure of C., R. I. & P. Ry. Co. bridge opened, May 31, 1899 5840
Bid above referred to tabulated, May 31, 1899 5841
Contract for superstructure of C., R. I. & P. Ry. Co. bridge awarded to, May 31, 1899 5840
Report of Committee on Finance transmitting executed agreement with, for superstructure for C., R. I. & P. Ry. Co. bridge, and approving bond on same, June 7, 1899 5851
Agreement for superstructure of C., R. I. & P. Ry. Co. bridge, June 7, 1899 5851
Bid of on Tow-path Bridge crossing River Diversion, opened and referred to the Committee on Engineering, September 20, 1899 6033
Bid above referred to tabulated, September 20, 1899 6034
Report on same September 26, 1899 6054
Chicago and Desplaines Valley Electric Railway Company—
Report of Joint Committee on Engineering and Judiciary in reference to signing frontage petition to operate railway on Summit and Lyons Road, March 8, 1899 5567
Report of Committee on Engineering in reference to agreements for right of way privileges, maintenance of bridge over Main Channel and for maintenance of flagman, March 8, 1899 5568

Chicago Junction Railway Company— Page
Report of Committee on Engineering in reference to extension of time on supplemental agreement with, January 11, 1899 5408
Report of Clerk transmitting supplemental agreement with in reference to extension of time on supplemental agreement, February 1, 1899 5448
Supplemental agreement in reference to extension of time on supplemental agreement for movable bridge, February 1, 1899 5448
Report of Committee on Engineering in reference to agreement with, for transfer of C. T. T. R. R. Co. tracks, August 2, 1899 5972
Report of Clerk transmitting executed agreement with, in reference to transfer of C. T. T. R. R. Co. tracks, September 6, 1899 6019
Agreement above referred to, September 6, 1899 6019
Order directing President and Clerk to arrange for extension of time for completing Eight-track bridge on contract with, December 13, 1899 6185
Chicago, Madison & Northern Railroad Company—
Chief Engineer's final certificate on bridge substructure near east end of Section N, across Kedzie avenue, of, for McArthur Bros. Co. and Winston & Co., referred to Committee on Engineering, February 8, 1899 5457
Report on same, February 16, 1899 5476
Final certificate above referred to printed in full, February 16, 1899 5477
Report of Committee on Judiciary reducing bond of McArthur Bros. Company and Winston & Co. on contract for bridge substructure, January 13, 1899 5481
Communication from The City Trust, Safe Deposit and Surety Company of Philadelphia in reference to release of bond of The Toledo Bridge Company on contract for bridge superstructure for, near east end Section N, referred to Joint Committee on Finance and Engineering, March 22, 1899 5585
Report on same, March 29, 1899 5595
Report of Committee on Finance in reference to payment to, for easement over certain land, March 23, 1899 5590
Report of Committee on Finance approving reduced bond of McArthur Bros. Co. and Winston & Co. on contract for substructure of, near east end of Section N, April 19, 1899 5645
Report of Committee on Engineering in reference to final certificate for The Toledo Bridge Company on bridge superstructure for, May 24, 1899 5813
Final certificate above referred to, May 24, 1899 5813
Report of Committee on Engineering in reference to payment of indemnity to, for repairs and maintenance of bridges of, May 24, 1899 5814
Certificate of Engineers determining amount of capitalization to be paid to, for repairs and maintenance of bridges, May 24, 1899 5815
Chicago & Northern Pacific Railway—(*See Chicago Terminal Transfer Railroad Company.*)
Chicago River—
Report of Joint Committee on Finance and Engineering in reference to sale of certain lands on South Branch of, to United States, May 3, 1899 5671
Permit from R. A. Alger, Secretary of War, for connection of Main Channel with, May 10, 1899 5675
Communication from Major William L. Marshall in reference to payment by United States for "Spry tract" on, November 8, 1899 6117
Report of Clerk in reference to payment by United States for "Spry tract" on, November 15, 1899 6122
Report from Chief Engineer transmitting communication from Consulting Engineer in reference to the capacity of the, November 22, 1899 6125
Report of Clerk in reference to payment by United States for certain lands on, December 20, 1899 6189
Chicago, Rock Island & Pacific Railway Company—
Order directing President and Clerk to deposit certain money and execute supplemental agreement with, for bridge construction at Joliet, Ill., March 22, 1899 5585
Report of Joint Committee on Finance and Engineering in reference to purchase from, certain lands in Joliet, Ill., March 23, 1899 5591
Bids on bridge superstructure for, opened, May 31, 1899 5840
Bids above referred to tabulated, May 31, 1899 5841
Contract for superstructure for, awarded to Chicago Bridge and Iron Company, May 31, 1899 5840
Report of Committee on Finance approving bond of Chicago Bridge and Iron Company on bridge superstructure for, June 7, 1899 5851

Chicago, Rock Island & Pacific Railway Company— Page
Agreement with Chicago Bridge and Iron Company for bridge superstructure for, June 7, 1899 5851
Chicago, Santa Fe and California Railway Company—
Report of Clerk transmitting agreement with, for exchange of lands, January 25, 1899 5437
Agreement for exchange of lands, January 25, 1899 5437
Order directing Attorney to institute condemnation proceedings for right of way across, in Section 20-37-11, and at Stephens Street crossing in Lemont, Ill., and elevate said Company's tracks, etc., March 8, 1899 5569
Report of Committee on Engineering in reference to exchange of certain lands with, March 29, 1899 5596
Report of Chief Engineer transmitting joint certificate covering capitalization of bridge crossing Main Channel on Section 8 at Lemont for, for repairs and maintenance, August 5, 1899 5976
Certificate above referred to, August 5, 1899 5976
Chicago, Santa Fe and California Railway Company et al. ("Santa Fe System")—
Report of Clerk transmitting supplemental agreement with, in reference to movable bridges, January 25, 1899 5435
Supplemental agreement in reference to movable bridges, January 25, 1899 5435
Chicago Star Construction and Dredging Company—
Report of Joint Committee on Judiciary and Finance reducing bond of, on contract for substructure of Kedzie Avenue bridge, January 18, 1899 5431
Communication from The City Trust, Safe Deposit and Surety Company of Philadelphia in reference to release of bond of, on contract for substructure of Kedzie Avenue bridge on Section N, referred to Joint Committee on Finance and Engineering, March 22, 1899 5585
Chicago Terminal Transfer Railroad Company—
Message from President transmitting letters from Secretary of War in reference to permits for construction of temporary and permanent bridges for, etc., March 22, 1899 5581
Letters above referred to printed in full, March 22, 1899 5582
Reports (majority and minority) of Committee on Engineering in reference to postponement of opening of bids for bridge sub and superstructure, near Taylor street, April 5, 1899 604
Bids on bridge sub and superstructure for, near Taylor street, opened and referred to Committee on Engineering, April 26, 1899 5664
Bids above referred to tabulated, April 26, 1899 ..... A5665
Report on same, May 3, 1899 5672
Report of Committee on Finance approving bond of Pennsylvania Steel Company on bridge contract for, near Taylor street, May 17, 1899 5779
Agreement with Pennsylvania Steel Company for bridge sub and superstructure for, May 17, 1899 5779
Report of Committee on Engineering in reference to agreement with Chicago Junction Railway Company for transfer of tracks of, August 2, 1899 5972
Report of Clerk transmitting executed agreement with Chicago Junction Railway Company, in reference to transfer of tracks of, September 6, 1899 6019
Agreement above referred to, September 6, 1899 6019
Report of Committee on Engineering in reference to employment of R. W. Hunt & Co. on mill and shop inspection of, bridge near Taylor Street, October 12, 1899 6074
Report of Committee on Engineering in reference to final certificate for Wisconsin Bridge and Iron Company on bridge superstructure for, crossing Desplaines River near west end of Section E, November 22, 1899 6130
Final certificate above referred to, November 22, 1899 6130
Final certificate for Heldmaier & Neu on bridge substructure for, over Desplaines River on Section E, December 13, 1899 6182
Report of Chief Engineer in reference to additional payment to Heldmaier & Neu on contract for bridge substructure for, over Desplaines River on Section E, December 20, 1899 6191
Order directing President and Clerk to arrange for extension of time for completing eight-track bridge on contract with, December 13, 1899 6185
Chicago and Western Indiana Railroad Company and Belt Railway Company of Chicago—
(*See Belt Railway Company of Chicago and Chicago and Western Indiana Railroad Company.*)

Page

Chief Engineer Authorized or Ordered and Directed—

To compile, summarize and tabulate bids on sub and superstructure for Jefferson and Cass street bridges, March 17, 1899. 5576

To suspend Saturday half holiday in certain cases, April 19, 1899 5648

To compile, summarize and tabulate bids on sub and superstructures of Chicago Terminal Transfer Railway Company and Taylor Street bridges, April 26, 1899.... 5664

To compile, summarize and tabulate bids on sub and superstructure of Belt Railway Company of Chicago and Chicago and Western Indiana Railroad Company bridge, May 10, 1899..... 5696

To compile, summarize and tabulate bids on superstructure of Towpath bridge crossing River Diversion, September 20, 1899..... 6033

To have asphalt filling done between counterweights of A., T. & S. F. R. R. Co. bridge at Lemont, October 4, 1899..... 6059

To employ R. W. Hunt & Co. on mill and shop inspection of C. T. T. R. R. Co. bridge near Taylor Street, October 12, 1899..... 6074

Chief Engineer, Orders Issued By—

Readjusting prices on contract with Griffiths & McDermott for superstructure of By-pass along Chicago River, July 12, 1899..... 5928

Readjusting prices on contract with McArthur Bros. Company for substructure of Eight-Track Bridge, July 12, 1899..... 5929

Chief Engineer, Isham Randolph, Reports—

Final certificate, Carnegie Steel Co., Ltd., on superstructure A., T. & S. F. Ry. Co. bridge near east end of Section G, referred to Committee on Engineering, February 8, 1899 5457

Report on same presented and recommitted to said Committee, February 16, 1899 5476

Report on same, April 12, 1899..... 5626

Final certificate above referred to printed in full, April 12, 1899. 5627

Final certificate, Carnegie Steel Co., Ltd., on superstructure A., T. & S. F. Ry. Co. bridge at west end of Section N, June 14, 1899..... 5875

Report of Committee on Engineering on same, June 14, 1899..... 5875

Final certificate, Carnegie Steel Co., Ltd., on superstructure A., T. & S. F. Ry. Co. bridge across main channel on Section 8, June 28, 1899. 5909

Report of Committee on Engineering on same, June 28, 1899..... 5908

Final certificate, Christie & Lowe, on superstructure of Regulating Works at Lockport, July 12, 1899..... 5928

Report of Committee on Engineering on same, July 12, 1899..... 5922

Final certificate, Christie & Lowe, on contract for Section K and on verbal contract for unfinished excavation on Section L, December 27, 1899..... 6220

Final certificate, Gahan & Byrne, on contract for Section F, February 16, 1899..... 5475

Final certificate, Gahan & Byrne, on contract for Section G, December 13, 1899..... 6182

Final certificate, Gahan & Byrne, on contract for Section H, December 13, 1899..... 6183

Final certificate, Griffiths & McDermott, on substructure for Lockport Highway bridge crossing River Diversion on Section 16, referred to Committee on Engineering, May 3, 1899..... 5669

Report on same, May 10, 1899..... 5695

Final certificate above referred to printed in full, May 10, 1899..... 5695

Final certificate, Griffiths & McDermott Construction Company, on foundations for Bear Trap Dam and collateral works on Section 16, August 16, 1899..... 5990

Report of Committee on Engineering on same, August 16, 1899..... 5989

Final certificate, Halvorson, Richards & Co., on contract for Section E, December 27, 1899.. 6222

Report of Committee on Engineering on same, December 27, 1899..... 6220

Final certificate (supplement to the), Halvorson, Richards & Co., on contract for Section E, December 27, 1899..... 6223

Report of Committee on Engineering on same, December 27, 1899..... 6220

Final certificate, Hayes Bros., on substructure for Wire Mills Road bridge crossing River Diversion on Section 16, referred to Committee on Engineering, May 3, 1899. 5669

Report on same, May 10, 1899..... 5695

Final certificate above referred to printed in full, May 10, 1899..... 5695

Final certificate, Heidmaier & Neu, on substructure of Romeoville Highway bridge crossing Main Channel, November 1, 1899..... 6109

Report of Committee on Engineering on same, November 1, 1899 6108

Final certificate, Heidmaier & Neu, on substructure of C. T. T. R. R Co. bridge over Desplaines River on Section E, November 13, 1899..... 6182

Chief Engineer, Isham Randolph, Reports— Page
Final certificate, King Bridge Company (The), on superstructure of Kedzie Avenue bridge, May 24, 1899 5813
Report of Committee on Engineering on same, May 24, 1899 5813
Final certificate, McArthur Bros. Co. and Winston & Co., on substructure A., T. & S. F. Ry. Co. bridge at west end of Section N, referred to Committee on Engineering, January 4, 1899 5390
Report on same, January 11, 1899 5406
Final certificate above referred to printed in full, January 11, 1899 5407
Final certificate, McArthur Bros. Co. and Winston & Co., on substructure C., M. & N. R. R. bridge near east end of Section N, across Kedzie Avenue, referred to Committee on Engineering, February 8, 1899 5457
Report on same, February 16, 1899 5476
Final certificate above referred to printed in full, February 16, 1899 5477
Final certificate, McArthur Bros. Co. and Winston & Co., on Summit and Lyons Highway bridge, May 24, 1899 5814
Report of Committee on Engineering on same, May 24, 1899 5813
Final certificate, McMahon & Montgomery Co. et. al., on Section O, referred to Committee on Engineering, February 23, 1899 5481
Report on same March 1, 1899 5503
Final certificate above referred to printed in full, March 1, 1899 5503
Final certificate, Penn Bridge Company on superstructure A., T. & S. F. Ry. Co. bridge across Desplaines River on Section 8, referred to Committee on Engineering, January 4, 1899 5391
Report on same, January 11, 1899 5406
Final certificate above referred to printed in full, January 11, 1899 5407
Final certificate, Sackley & Peterson, on substructure Willow Springs Highway bridge crossing Main Channel, referred to Committee on Engineering, January 4, 1899 5391
Report on same, January 14, 1899 5424
Final certificate above referred to printed in full, January 14, 1899 5424
Final certificate, C. L. Strobel, on superstructure of Lemont Highway bridge, April 5, 1899 5603
Report of Committee on Engineering on same, April 5, 1899 5603
Final certificate, C. L. Strobel, on superstructure of Willow Springs Highway bridge, April 5, 1899 5604
Report of Committee on Engineering on same, April 5, 1899 5603
Final certificates, C. L. Strobel, on superstructures for Willow Springs and Lemont Highway bridges crossing Main Channel, July 19, 1899 5940
Report of Committee on Engineering on same, July 19, 1899 5939
Final certificate, C. L. Strobel, on superstructure for Summit and Lyons Highway bridge crossing Main Channel, July 19, 1899 5941
Report of Committee on Engineering on same, July 19, 1899 5939
Final certificate, Toledo Bridge Company (The), on superstructure of C., M. & N. R. R. Co. bridge, May 24, 1899 5813
Report of Committee on Engineering on same, May 24, 1899 5813
Final certificate, Wagner Company, The J. G., on superstructure of Southwest Boulevard and Western Avenue bridge, June 7, 1899 5870
Report of Committee on Engineering on same, June 7, 1899 5869
Final certificate, Wisconsin Bridge and Iron Co., and remission of penalty, on superstructure of Lockport Highway bridge, August 2, 1899 5971
Report of Committee on Engineering on same, August 2, 1899 5970
Final certificate, Wisconsin Bridge and Iron Company, on superstructure for Wire Mills Road bridge crossing River Diversion, September 13, 1899 6029
Report of Committee on Engineering on same, September 13, 1899 6028
Final certificate, Wisconsin Bridge and Iron Company, on superstructure for C. T. T. R. R. Co. Bridge crossing Desplaines River near west end of Section E, November 22, 1899 6130
Report of Committee on Engineering on same, November 22, 1899 6130
Transmitting award settling claims of Heidmaier & Neu on Section 17, January 25, 1899 5440
Transmitting communication from Carnegie Steel Company, Ltd., for release of bond on contract for superstructure A., T. & S. F. Ry. Co. bridge on Section G, referred to Committee on Engineering, January 25, 1899 5440
Report on same April 12, 1899 5628

Chief Engineer, Isham Randolph, Reports— Page
Transmitting communication from Carnegie Steel Company, Ltd., for release of bond on contract for superstructure for A., T. & S. F. Ry. Co. bridge near east end Section G, referred to Committee on Engineering, March 17, 1899 5574
Report on same, April 12, 1899 5628
In reference to partial payment for Wisconsin Bridge and Iron Company, on superstructure of C. T. T. Ry. bridge across Desplaines River near west end of Section E, February 1, 1899 5448
In reference to payment of Sackley & Peterson on contract for substructure Lemont Highway bridge across Main Channel, referred to Committee on Engineering, February 8, 1899 5457
Report on same, February 16, 1899 5474
Report of Chief Engineer above referred to printed in full, February 16, 1899 5475
Transmitting communication from The City Trust, Safe Deposit and Surety Company of Philadelphia for release of bond of Gahan & Byrne on contract for Section F, referred to Committee on Engineering, March 17, 1899 5574
Report on same, April 12, 1899 5627
Transmitting bill of sale from American Bridge Works to Griffiths & McDermott for steel in By-pass along Chicago River and asking authority of a payment of $82,000 on account, March 23, 1899 5589
Recommending payment to The J. G. Wagner Company on account of contract for superstructure of Western Avenue and Southwest Boulevard bridge, May 31, 1899 5831
Transmitting joint certificate covering capitalization of bridge for Belt Ry. Co. of Chicago and Chicago and Western Indiana R. R. Co. for repairs and maintenance, June 7, 1899 5850
Certificate above referred to, June 7, 1899 5850
Transmitting joint certificate covering capitalization of bridge at west end of Section N, for A., T. & S. F. Ry. Co. et al. ("Santa Fe System"), for repairs and maintenance, July 14, 1899 5876
Certificate above referred to, June 14, 1899 5876
In reference to fixing amount of forfeiture on contract with Carnegie Steel Company, Ltd., for superstructure of A., T. & S. F. Ry. Co. bridge across Main Channel on Section 8, referred to Committee on Engineering, June 21, 1899 5882
In reference to payment by A., T. & S. F. Ry. Co. for one-half cost superstructure of A., T. & S. F. Ry. Co. bridge across Desplaines River on Section 8, July 5, 1899 5912
In reference to claims of McMahon & Montgomery Company, et al., for extra compensation on Section O, July 19, 1899 5935
Transmitting joint certificate covering capitalization of bridge crossing Main Channel at Lemont on Section 8, for C., S. F. & C. Ry. Co., for repairs and maintenance, August 5, 1899 5975
Transmitting communication from Consulting Engineer Thomas T. Johnston in reference to capacity of the Chicago River, November 22, 1899 6125
In reference to claims of Gahan & Byrne for extra compensation on contracts for Sections F, G and H, December 13, 1899 6164
In reference to additional payment to Heldmaier & Neu on contract for substructure of C. T. T. R. R. Co. bridge over Desplaines River on Section E, December 20, 1899 6191
In reference to payment for force account work employed by McArthur Bros. Co. for District at Eight-track bridge, December 27, 1899 6220

Chief Engineer (Acting), Thomas T. Johnston, Reports—
Final certificate, C. L. Strobel, on superstructure for Romeoville Highway bridge crossing Main Channel, September 13, 1899 6029
Report of Committee on Engineering on same, September 13, 1899 6028

Christie & Lowe—
Communication from, requesting release of bonds on contracts for Sections I and K, referred to Joint Committee on Finance and Engineering, February 15, 1899 5472
Report on same, March 23, 1899 5590
Report of Committee on Engineering in reference to final certificate for, on contract for superstructure of Regulating Works at Lockport, July 12, 1899 5922
Final certificate above referred to, July 12, 1899 5923
Final certificate for, on contract for Section K and on verbal contract for unfinished excavation on Section L, December 27, 1899 6220

City of Chicago—(*See Chicago, City of.*)
City of Joliet—(*See Joliet, City of.*)

City Trust, Safe Deposit and Surety Company of Philadelphia, The— Page
Report of Chief Engineer transmitting communication from, for release of bond of Gahan & Byrne on contract for Section F, referred to Committee on Engineering, March 17, 1899 5574
Report on same, April 12, 1899 5627
Communication from, in reference to release of bond of The Toledo Bridge Company on contract for superstructure for C., M. & N. R. R. Co. bridge near east end Section N, referred to Joint Committee on Finance and Engineering, March 22, 1899 5585
Report on same, March 29, 1899 5596
Communication from, in reference to release of bond of Chicago Star-Construction and Dredging Company on contract for substructure of Kedzie Avenue bridge on Section N, referred to Joint Committee on Finance and Engineering, March 22, 1899 5585
Communication from, in reference to release of bond of The King Bridge Company on contract for superstructure of Kedzie Avenue bridge, referred to Committee on Finance, July 12, 1899 5923
Report on same, August 2, 1899 5970
Communications from, in reference to release of bonds of Carnegie Steel Company, Ltd., on contracts for superstructures of A., T. & S. F. Ry. Co. bridges at west end of Section N, and on Section 8, referred to Committee on Finance, July 12, 1899 5923
Report on same, July 26, 1899 5948
Report of Committee on Engineering in reference to assignment by The Scherzer Rolling Lift Bridge Company to McArthur Bros. Co. of contract for substructure of eight-track bridge and consent of, to said assignment, July 12, 1899 5923
Report of Attorney transmitting said assignment and consent of, July 12, 1899 5994
Communication from, in reference to release of bonds of C. L. Strobel on contracts for superstructures of Summit and Lyons, Willow Springs, Lemont and Romeoville Highway bridges, referred to Committee on Finance, October 18, 1899 6085

Clerical Department—
Annual report for 1898, February 15, 1899 5463
Monthly report for December, 1898, January 11, 1899 5401
Monthly report for January, 1899, February 15, 1899 5462
Monthly report for February, 1899, March 17, 1899 5572
Monthly report for March, 1899, April 19, 1899 5644
Monthly report for April, 1899, May 10, 1899 5678
Monthly report for May, 1899, June 14, 1899 5873
Monthly report for June, 1899, July 12, 1899 5919
Monthly report for July, 1899, August 16, 1899 5985
Monthly report for August, 1899, September 13, 1899 6026
Monthly report for September, 1899, October 18, 1899 6079
Monthly report for October, 1899, November 15, 1899 6121
Monthly report for November, 1899, December 6, 1899 6157
Order allowing $2.5 0.00 additional as Emergency Fund, November 1, 1899 6110
Report of Committee on Finance having had books of, audited, March 1, 1899 5502
Weekly report on employes, January 4, 1899 5390
Weekly report on employes, January 11, 1899 5396
Weekly report on employes, January 18, 1899 5429
Weekly report on employes, January 25, 1899 5434
Weekly report on employes, February 1, 1899 5447
Weekly report on employes, February 8, 1899 5456
Weekly report on employes, February 15, 1899 5463
Weekly report on employes, February 23, 1899 5480
Weekly report on employes, March 1, 1899 5498
Weekly report on employes, March 8, 1899 5510
Weekly report on employes, March 17, 1899 5572
Weekly report on employes, March 22, 1899 5582
Weekly report on employes, March 29, 1899 5594
Weekly report on employes, April 5, 1899 5602
Weekly report on employes, April 12, 1899 5609
Weekly report on employes, April 19, 1899 5630
Weekly report on employes, April 26, 1899 5650
Weekly report on employes, May 3, 1899 5668
Weekly report on employes, May 10, 1899 5678
Weekly report on employes, May 17, 1899 5703

Clerical Department— Page
Weekly report on employes, May 24, 1899 5797
Weekly report on employes, May 31, 1899 5820
Weekly report on employes, June 7, 1899 5849
Weekly report on employes, June 14, 1899 5873
Weekly report on employes, June 21, 1899 5880
Weekly report on employes, June 28, 1899 5888
Weekly report on employes, July 5, 1899 5912
Weekly report on employes, July 12, 1899 5919
Weekly report on employes, July 19, 1899 5933
Weekly report on employes, July 26, 1899 5946
Weekly report on employes, August 2, 1899 5953
Weekly report on employes, August 9, 1899 5981
Weekly report on employes, August 16, 1899 5985
Weekly report on employes, August 23, 1899 5994
Weekly report on employes, August 30, 1899 6015
Weekly report on employes, September 6, 1899 6018
Weekly report on employes, September 13, 1899 6025
Weekly report on employes, September 20, 1899 6033
Monthly reports on employes ordered in place of weekly reports, September 26, 1899 6056
Monthly report on employes for October, 1899, November 1, 1899 6098
Monthly report on employes, December 6, 1899 6157

Clerk Authorized or Ordered and Directed—
To execute (with President) release of judgment for $156.67 against Frances Livingston, January 11, 1899 5406
To make (with President) final payment on contracts for substructure A., T. & S. F. Ry. Co. bridge at west end of Section N, and superstructure A., T. & S. F. Ry. Co. bridge across Desplaines River on Section 8, January 11, 1899 5406
To execute (with President) agreement for extension of time on supplemental agreement with Chicago Junction Railway Company, January 11, 1899 5408
To return checks of Chicago Bridge and Iron Co. and Lydon & Drews Co., deposited with bids on Van Buren Street approach span, January 11, 1899 5408
To transmit (with President) copy of order directing inspection of Main Channel by Commission to be appointed by Governor Tanner, January 11, 1899 5422
To make (with President) final payment on contract for substructure of Willow Springs Highway bridge crossing Main Channel, January 14, 1899 5424
To draw warrants against 1898 tax levy, and method warrants less than $50 shall be drawn, January 18, 1899 5432
To execute (with President) agreement for temporary crossing Desplaines River with Joliet Railroad Company, January 25, 1899 5442
To make (with President) final payment on contract for substructure of Lemont Highway bridge crossing Main Channel, February 16, 1899 5474
To make (with President) final payment on contract for Section F, February 16, 1899. 5475
To make (with President) final payment on contract for substructure of C., M. & N. R. R. Co. bridge, February 16, 1899 5476
To certify to County Clerk on or before second Tuesday of August, 1899, amount of tax levy for 1899, February 23, 1899 5496
To execute (with President) lease with Security Deposit Company for offices in Chicago for Sanitary District, March 1, 1899 5502
To make (with President) payment of certain sums to McMahon & Montgomery Co., et al., upon latter filing bond for the unwatering of Section O, March 1, 1899 5503
To sign (with President) frontage petition for Chicago and Desplaines Valley Electric Railway Company to operate railway on Summit and Lyons Road, March 8, 1899 5567
To execute (with President) agreements with Chicago and Desplaines Valley Electric Railway Company for right of way privileges, maintenance of bridge over Main Channel and for maintenance of flagman, March 8, 1899 5568
To execute (with President) papers for transfer of "Adams storehouse," March 17, 1899. 5574
To execute (with President) agreement with Metropolitan West Side Elevated Railway Company for construction and maintenance of By-pass, etc., March 17, 1899 5575
To execute (with President) leases to Albert Pigarsch, Richard Marshall, or other persons, for lands on Sections A, B, C and D, March 22, 1899 5584
To deposit (with President) certain money and execute (with President) supplemental agreement with C., R. I. & P. Ry. Co. for bridge construction at Joliet, Ill., March 22, 1899 5585

Clerk Authorized or Ordered and Directed— Page
To execute (with President) release of judgment for $156.67 against Frances Livingston, March 23, 1899 5589
To make (with President) payment to C., M. & N. R. R. Co. for easement over certain land, March 23, 1899 5590
To pay $1,254.54 to C., R. I. & P. Ry. Co. for certain lands in Joliet, Ill., March 23, 1899. 5591
To draw warrant for $2,000.00 as additional emergency fund for Law Department, March 23, 1899 5592
To execute (with President) deed for exchange of certain lands with C., S. F. & C. Ry. Co., March 29, 1899 5596
To execute (with President) contracts with The J. G. Wagner Company for sub and superstructures of Jefferson and Cass Streets bridges in Joliet, Ill., March 29, 5596
To return certain checks deposited with bids on sub and superstructures of Jefferson and Cass Streets bridges in Joliet, Ill., March 29, 1899 5598
To make (with President) payment to Cosmopolitan Electric Company for damage to building and plant, March 29, 1899 .....
To make (with President) final payment on contracts for superstructures of Lemont and Willow Springs highway bridges across Main Channel, April 5, 1899 5603
To publish notice of postponement of opening of bids for sub and superstructures of Chicago Terminal Transfer Ry. Co. and Taylor Street bridges, April 5, 1899 5604
To pay $250.00 to Sayre Rodman for certain lands in Will County, Ill., April 12, 1899 .. 5626
To make (with President) final payment on contract for superstructure of A., T. & S. F. Ry. Co. bridge near east end of Section G, April 12, 1899 5626
To draw warrant for payment of semi-annual interest due May 1, 1899, on bonds of first issue, April 19, 1899 5647
To pay (with President) semi-annual rental due May 1, 1899, to Pennsylvania Company under agreement for by-pass along Chicago River, April 19, 1899 5647
To execute (with President) necessary conveyances for certain lands for Romeoville highway and release damages sustained by reason of the establishment of said highway, April 19, 1899 5647
To lease (with President) lands of the Sanitary District, April 19, 1899 5648
To make (with President) payment to Chester A. Allen in full settlement for lands and damages. April 26, 1899 5664
To draw warrant in payment of Will County taxes, April 26, 1899 5664
To execute (with President) agreements and warranty deed to the United States for certain lands on South Branch of Chicago River, May 3, 1899 5671
To enter (with President) into contracts with Pennsylvania Steel Company and Chicago Bridge and Iron Company for sub and superstructures of C. T. T. Ry. Co. and Taylor Street bridges, May 3, 1899 5672
To make (with President) final payments on contracts for substructures of Lockport Highway and Wire Mills Road bridges on Section 16, May 10, 1899 5695
To call regular meetings of the Board for every Wednesday until further ordered, May 10, 1899 5696
To cancel bond of James Reddick as Clerk and notify him of the action of the Board, May 17, 1899 5702
To enter (with President) into agreement with P. Peterson for removal of Western Avenue Pontoon Bridge, May 24, 1899 5812
To make (with President) final payments on contracts for superstructures of Kedzie Avenue Highway and C., M. & N. R. R. Co., and substructure of Summit and Lyons Highway bridges, May 24, 1899 5813
To pay (with President) to C., M. & N. R. R. Co., indemnity for repairs and maintenance of bridges, May 24, 1899 5814
To execute (with President) contract with The Toledo Bridge Company for sub and superstructure of Belt Railway Company of Chicago and Chicago and Western Indiana Railroad Company bridge, May 24, 1899 5817
To execute (with President) agreement with A., T. & S. F. Ry. Co. for temporary occupation of right of way for use of eight-track bridge, May 31, 1899 5838
To execute (with President) contract with Chicago Bridge and Iron Company for superstructure of C., R. I. & P. Ry. Co. bridge, May 31, 1899 5840
To return checks deposited with bids for superstructure of C., R. I. & P. Ry. Co. bridge, May 31, 1899 5840
To publish ordinance appropriating $25,000 for use of Special Commissioners Chicago Drainage Canal, June 3, 1899 5844

Clerk Authorized or Ordered and Directed— Page
To pay (with President) to Belt Railway Company of Chicago indemnity for repairs and maintenance of bridge, June 7, 1899 ... 5850
To execute (with President) agreements with The Metropolitan West Side Elevated Railway Company, and with Pennsylvania Company and said Elevated Railway Company for By-Pass, June 7, 1899 ... 5859
To execute (with President) agreements with David Oliver for conveying certain land and for water power, and for motor for transmission of water power, June 7, 1899 ... 5866
To make (with President) final payment on contract for superstructure of Southwest Boulevard and Western Avenue bridge, June 7, 1899 ... 5869
To make (with President) final payment on contract for superstructure of A., T. & S. F. Ry. Co. bridge at west end of Section N, June 14, 1899 ... 5875
To pay (with President) to A., T. & S. F. Ry. Co. et al. ("Santa Fe System"), indemnity for repairs and maintenance of bridge at west end of Section N, June 14, 1899 ... 5872
To execute (with President) agreement with American Steel and Wire Company of New Jersey for conveying certain land for water power and for motor for transmission of water power, June 21, 1899 ... 5882
To advertise (with President) for bids for development and leasing of water power, June 21, 1899 ... 5886
To pay $150.60 to E., J. & E. Ry. Co. for certain land, June 28, 1899 ... 5904
To pay John T. White, Addie Eliza House, Amanda D. Higgins, John T. Donahoe, Arthur Caton, Carrie Williams, John Deane Towne and Norman Towne, Samuel S. Parks, James G. Elwood, John E. Bush and James B. Speer for certain lands in accordance with court decree, June 28, 1899 ... 5905
To execute (with President) agreement with City of Chicago for maintenance of pumping station south of Seventy-fifth street, June 28, 1899 ... 5907
To pay maturing bonds of third issue and semi-annual interest on second, third, fourth, fifth, sixth, seventh and eighth issues, June 28, 1899 ... 5910
To pay (with President) annual rental due, June 1, 1899, to The Chicago and Alton Railroad Company under agreement for By-pass along Chicago River, June 28, 1899 ... 5910
To pay to parties interested for certain lands in accordance with court decree in case of Sanitary District vs. The American Stone Company et al., July 5, 1899 ... 5913
To execute (with President) agreement with William G. and Eleanor J. Roelker for warranty deed and guarantee abstract of title to certain land, and for dock construction, July 5, 1899 ... 5914
To pay $340.00 to James G. Elwood for certain lands in Will County, Ill., July 12, 1899 ... 5921
To make (with President) final payment on contract for superstructure of Regulating Works at Lockport, July 12, 1899 ... 5922
To execute (with President) consent of Sanitary District to assignment by The Scherzer Rolling Lift Bridge Company to McArthur Bros. Company, July 12, 1899 ... 5928
To pay (with President) to Dr. Arthur R. Reynolds $300.00 per month on account of streams examination, July 19, 1899 ... 5939
To make (with President) final payments on contracts for superstructures of Willow Springs, Lemont, and Summit and Lyons Highway bridges crossing Main Channel, July 19, 1899 ... 5929
To make (with President) final payment on contract for superstructure of Lockport Highway bridge, August 2, 1899 ... 5970
To sign (with President) lease with Security Deposit Co. for quarters for Cement Testing Department, August 2, 1899 ... 5972
To execute (with President) agreement with Chicago Junction Ry. Co. for transfer of C. T. T. R. R. Co. tracks, August 2, 1899 ... 5972
To pay Special Commissioners' pay-roll and bills incurred July, 1899, August 2, 1899 ... 5974
To make (with President) final payment on contract for foundation of Bear Trap Dam and collateral works, August 16, 1899 ... 5989
To execute (with President) agreement with City of Chicago for construction of Canal Street bridge, August 30, 1899 ... 6015
To purchase mimeograph, September 6, 1899 ... 6018
To pay Special Commissioners' pay-roll and bills incurred August, 1899, September 6, 1899. 6022
To pay (with President) final certificate on contracts for bridge superstructures of Wire Mills Road crossing River Diversion and Romeoville Highway crossing Main Channel, September 13, 1899 ... 6028
To execute (with President) contract with the Joliet Bridge and Iron Company for superstructure of Tow-path bridge crossing River Diversion, September 26, 1899 ... 6054

Clerk Authorized or Ordered and Directed— Page

To pay Special Commissioners' pay-roll and bills incurred September, 1899, September 26, 1899 6055
To draw (with President) warrant for payment of pay-rolls of force account, September 26, 1899 6056
To report on employes monthly instead of weekly, September 26, 1899 6056
To pay Heldmaier & Neu $10,000.00 out of reserve percentage on Section 17, October 12, 1899 6075
To file (with President) with City Clerk of Joliet, acceptance of ordinance for construction of Cass and Jefferson Streets bridges and repair of Jackson Street bridge, October 18, 1899 6081
To pay maturing bonds of first issue and semi-annual interest due November 1, 1899, on said issue, October 25, 1899 6090
To pay (with President) semi-annual rental due November 1, 1899, to Pennsylvania Company under agreement for By-pass along Chicago River, October 25, 1899 6090
To make (with President) final payment on contract for substructure of Romeoville Highway bridge crossing Main Channel, November 1, 1899 6108
To pay (with President) Hayes Bros. $4,000.00 out of reserve percentage on Section N, November 1, 1899 6109
To pay Special Commissioners' pay roll and bills incurred October, 1899, November 1, 1899. 6109
To draw warrant for $2,500.00 as additional emergency fund for Clerical Department, November 1, 1899 6110
To execute and deliver (with President) deed for certain lands to Economy Light and Power Company, November 8, 1899 6116
To draw (with President) warrant for $3,000.00 as additional emergency fund for Law Department, November 15, 1899 6122
To make (with President) final payment on contract for superstructure of C. T. T. R. R. Co. bridge crossing Desplaines River, November 22, 1899 6130
To pay Special Commissioners' pay-roll and bills incurred November, 1899, December 6, 1899 6159
To arrange (with President) for extension of time for completing Eight-track bridge on contracts with C. J. Ry. Co., C. T. T. R R. Co., and P., C., C. & St. L. Ry., December 13, 1899 6185
To advertise for proposals on $1,000,000 bonds, December 20, 1899 6192
To pay maturing bonds of second, fourth, fifth and sixth issues and semi-annual interest on second, third, fourth, fifth, sixth, seventh and eighth issues, December 20, 1899 6194
To execute (with President) and deliver copy of, agreement with the Canal Commissioners for maintenance of "Summit Level," December 21, 1899 6197
To pay final certificate on contract for Section E and to pay (with President) certain claims against Angus & Gindele, December 27, 1899 6220

Clerk, Joseph F. Haas, Reports—

Transmitting executed agreement with Belt Railway Company of Chicago and Chicago and Western Indiana Railroad Company for crossing right of way, January 11, 1899 5396
Transmitting executed supplemental agreement with A., T. & S. F. Ry. Co., et al. ("Santa Fe System"), in reference to movable bridges, January 25, 1899 5435
Transmitting executed agreement with C., S. F. & C. Ry. Co. for exchange of lands, January 25, 1899 5437
Transmitting executed supplemental agreement with Chicago Junction Railway Company in reference to extension of time on supplemental agreement, February 1, 1899 5448
Transmitting executed agreement with Joliet Railroad Company for temporary crossing, Desplaines River at Jefferson Street, Joliet, Ill., March 1, 1899 5499
In reference to refusal of McMahon & Montgomery Company, et al. to accept and receipt for vouchers (in payment of final reserve on Section O) and transmitting order setting forth manner of payment and receipt for same, March 8, 1899 5566
Call by, for special meeting of Board of Trustees, June 3, 1899 5843
In reference to having deposited appropriation to credit of Special Commissioners Chicago Drainage Canal, June 14, 1899 5874
Transmitting executed agreement with A., T. & S. F. Ry. Co. for temporary occupation of right of way for use of eight-track bridge, July 19, 1899 5933
In reference to account of Paul Redieske, Collector, July 26, 1899 5946
Call by, for special meeting of Board of Trustees, August 5, 1899 5975
Transmitting executed agreement with Chicago Junction Railway Company in reference to transfer of C. T. T. R. R. Co. tracks, September 6, 1899 6019

Page

Clerk, Joseph F. Haas, Reports—
Call by, for special meeting of Board of Trustees, September 26, 1899 6035
Transmitting executed agreement with City of Chicago for construction of Canal Street bridge, September 26, 1899 6037
Transmitting executed agreement with The Joliet Bridge and Iron Company for superstructure for Tow-path Bridge crossing River Diversion, October 12, 1899 6066
In reference to re-depositing with Treasurer uncalled pay-envelopes of William Coogan and R. Barnhill, November 1, 1899 6093
In reference to payment by United States for "Spry tract," November 15, 1899 6122
In reference to execution and delivery of deed for certain lands to Economy Light and Power Company, November 22, 1899 6124
Call by, for special meeting of Board of Trustees, November 28, 1899 6133
In reference to payment by United States for certain lands, December 20, 1899 6189

Clerk (Acting), Thomas S. Bell, Reports—
Call by, for special meeting of Board of Trustees, August 17, 1899 5991

Closing of Offices of Sanitary District—
On Decoration Day, May 30, 1899, May 24, 1899 5818
On Fall Festival Days of week commencing October 9, 1899, as may be deemed advisable by President, October 4, 1899 6061
On Independence Day, July 4, 1899, June 28, 1899 5910
On Labor Day, September 4, 1899, August 30, 1899 6016
On Lincoln's birthday, February 13, 1899, February 8, 1899 5459
On Prendergast, Richard, day of funeral of, August 17, 1899 5992
On Saturdays at noon, from April 22, 1899, to September 30, 1899, April 19, 1899 5648
On Washington's birthday, February 22, 1899, February 8, 1899 5459

Coen, Edward J., Marshal—(*See Police Department.*)

Committee on Engineering, Reports—
In reference to agreement with C. & W. I. R. R. Co. and Belt Railway Co. of Chicago for crossing right of way, January 4, 1899 5392
In reference to final payment on contracts for substructure A., T. & S. F. Ry. Co. bridge, at west end of Section N, and superstructure A., T. & S. F. Ry. Co. bridge across Desplaines River on Section 8, January 11, 1899 5406
In reference to extension of time on supplemental agreement with Chicago Junction Railway Company, January 11, 1899 5408
In reference to final payment on contract for substructure of Willow Springs Highway bridge crossing Main Channel, January 14, 1899 5424
Allowing Requisition No. 591 for Engineering Department, January 25, 1899 5441
In reference to agreement with Joliet Railroad Company for temporary crossing Desplaines River, January 25, 1899 5442
In reference to claim of Edward Payette against Sanitary District, February 1, 1899 5450
In reference to final payment on contract for substructure of Lemont Highway bridge crossing Main Channel, February 16, 1899 5474
In reference to final payment on contract for Section F, February 16, 1899 5475
In reference to final certificate on contract for substructure of C., M. & N. R. R. Co. bridge across Kedzie Avenue, February 16, 1899 5476
In reference to final certificate on contract for superstructure A., T. & S. F. Ry. Co. bridge near east end of Section G, report recommitted to said Committee, February 16, 1899 5476
Report on same, April 12, 1899 5626
In reference to monthly report of Engineering Department for month of December, 1898, February 23, 1899 5481
In reference to final certificate on contract for Section O, March 1, 1899 5503
In reference to agreement with Metropolitan West Side Elevated Railway Company for construction and maintenance of By-pass, etc., March 17, 1899 5575
On communications from Albert Pigarsch and Pease & Allen, attorneys for Richard Marshall, leasing lands on Sections A, B, C and D, March 22, 1899 5584
In reference to exchange of certain lands with C., S. F. & C. Ry. Co., March 29, 1899 5596
On bids for sub and superstructures for Jefferson and Cass Street bridges at Joliet, Ill., March 29, 1899 5598
In reference to claim of Cosmopolitan Electric Company for damages to building and plant, March 29, 1899 5600
In reference to final certificates on contracts for superstructures of Lemont and Willow Springs Highway bridges, April 5, 1899 5603

Committee on Engineering, Reports— Page
(Majority and minority) in reference to postponement of opening of bids for sub and superstructures of Chicago Terminal Transfer Railway Company's and Taylor Street bridges, April 5, 1899 5604
In reference to reduction of bond on contract for Section F, April 12, 1899 5627
In reference to reduction of bond on contract for superstructure of A., T. & S. F. Ry. Co. bridge near east end of Section G, April 12, 1899 5628
Transmitting ordinance for Stephens Street subway, April 19, 1899 5645
In reference to settlement with Chester A. Allen for lands and damages, April 26, 1899 5664
On bids for sub and superstructures of Chicago Terminal Transfer Railway Company and Taylor Street bridges, May 3, 1899 5672
In reference to employment of W. M. Hughes to take charge of the bridge construction, May 3, 1899 5672
In reference to final certificates on contracts for substructures of Lockport Highway and Wire Mills Road bridges, May 10, 1899 5695
In reference to agreement with P. Peterson for removal of pontoon bridge at Western avenue, May 24, 1899 5812
In reference to final certificates on contracts for superstructures of Kedzie Avenue and C., M. & N. R. R. Co. and substructure of Summit and Lyons Highway bridges, May 24, 1899 5813
In reference to payment of indemnity to C., M. & N. R. R. Co. for repairs and maintenance of bridges, May 24, 1899 5814
In reference to release of surety on bond of contract for Section 15, May 24, 1899 5815
In reference to agreement for models of Sanitary District Channel and works for Paris Exposition, May 24, 1899 5816
On bids for sub and superstructure for Belt Railway Company of Chicago and Chicago and Western Indiana Railroad Company bridge near east end of Section K, May 24, 1899 5817
Transmitting ordinance for Romeoville bridge and highway, May 31, 1899 5836
In reference to agreement with A., T. & S. F. Ry. Co. for temporary occupation of right of way for use of eight-track bridge, May 31, 1899 5838
(Majority and minority) on proposition from Madden & Sawyer to collect $2,800.00 taxes, May 31, 1899 5839
Transmitting agreements with The Metropolitan West Side Elevated Railway Company and with Pennsylvania Company and said Elevated Railway Company for By-pass, June 7, 1899 5859
Transmitting agreements with David Oliver for conveying certain land, and for water power and motor for transmission of water power, June 7, 1899 5866
In reference to final certificate on contract for superstructure of Southwest Boulevard and Western Avenue bridge, June 7, 1899 5869
In reference to final certificate on contract for superstructure of A., T. & S. F. Ry. Co. bridge at west end of Section N, June 14, 1899 5875
Transmitting draft of agreement with American Steel and Wire Company of New Jersey for conveying certain land, for water power, and motor for transmission of water power, June 21, 1899 5882
In reference to advertising for bids for development and leasing of water power, June 21, 1899 5884
In reference to agreement with City of Chicago for maintenance of pumping station south of Seventy-fifth Street, June 28, 1899 5907
In reference to final certificate on contract for superstructure of A., T. & S. F. Ry. Co. bridge across Main Channel on Section 8, June 28, 1899 5908
In reference to final certificate on contract for superstructure of Regulating Works at Lockport, July 12, 1899 5922
In reference to assignment by The Scherzer Rolling Lift Bridge Company to McArthur Bros. Co. of contract for substructure of eight-track bridge, July 12, 1899 5923
In reference to readjustment of prices on contract for substructure of eight-track bridge and on contract for superstructure for By-pass along Chicago River, July 12, 1899 5927
In reference to advancing monthly payment to Dr. Arthur R. Reynolds on account of streams examination, July 19, 1899 5939
In reference to final certificates on contracts for superstructures of Willow Springs, Lemont, and Summit and Lyons Highway bridges crossing Main Channel, July 19, 1899 5939
In reference to final certificate and remission of penalty on contract for superstructure of Lockport Highway bridge, August 2, 1899 5970

Committee on Engineering, Reports— Page
In reference to lease of quarters in Chicago from Security Deposit Company for cement testing department, August 2, 1899 5972
In reference to agreement with Chicago Junction Railway Company for transfer of C. T. T. R. R. Co.'s tracks, August 2, 1899 5972
In reference to remittance and waiver of time penalty on contract for superstructure of Wire Mills Road bridge, August 16, 1899 5988
In reference to payment of sundry claims (for demurrage, etc., to boats) under agreement with The Canal Commissioners, August 16, 1899 5989
In reference to final certificate on contract for Bear Trap Dam foundations and collateral work on Section 15, August 16, 1899 5989
In reference to agreement with City of Chicago for construction of bridge at Canal Street, August 30, 1899 6015
In reference to final certificates on contracts for superstructures of Wire Mills Road bridge crossing River Diversion on Section 16, and Romeoville Highway bridge crossing Main Channel, September 13, 1899 6028
On bids for superstructure for Tow-path bridge crossing River Diverson, September 26, 1899 6054
(Majority and minority) in reference to bids on asphalt filling between counterweights of A., T. & S. F. R. R. Co. bridge at Lemont, October 4, 1899 6059
In reference to employment of R. W. Hunt & Co. on mill and shop inspection of C. T. T. R. R. Co. bridge near Taylor Street, October 12, 1899 6074
In reference to granting Egbert Phelps permission to remove historic mill stone from Desplaines River in Joliet, Ill., October 12, 1899 6075
Transmitting ordinance accepting ordinance passed by the City Council of Joliet, Ill., relating to the construction of bridges, October 18, 1899 6080
In reference to final certificate on contract for substructure of Romeoville Highway bridge crossing Main Channel, November 1, 1899 6108
In reference to execution of deed for certain lands to Economy Light and Power Company, November 8, 1899 6116
In reference to final certificate on contract for superstructure of C. T. T. R. R. Co. bridge crossing Desplaines River near west end of Section E, November 22, 1899 6130
Transmitting ordinance accepting amended ordinance passed by City Council of Joliet, Ill., relating to the construction of bridges, December 13, 1899 6183
(Majority and minority) in reference to agreement with The Canal Commissioners for maintenance of "Summit Level," December 21, 1899 6197
In reference to final certificate on contract for Section R, December 27, 1899 6220

Committee (Joint) on Engineering and Judiciary, Reports—
In reference to signing frontage petition for Chicago and Desplaines Valley Electric Railway Company to operate railway on Summit and Lyons Road, March 8, 1899 .. 5567

Committee on Federal Relations, Reports—
In reference to communication from Special Commissioners Chicago Drainage Canal asking for $25,000 for payment of salaries and other bills and recommending ordinance on same, June 3, 1899 5844

Committee (Joint) on Federal Relations and Engineering, Reports—
In reference to appointment of Commission for inspection of Main Channel, January 11, 1899 5421
In reference to resolution pertaining to Deep Waterway Convention to be held at Peoria, Ill., October 4, 1899 6060
In reference to removal of dams at Henry and Copperas Creek, October 18, 1899 6084

Committee (Joint) on Federal Relations and Health and Public Order, Reports—
In reference to examination of waters of Illinois and Michigan Canal, Desplaines, Illinois and Mississippi Rivers, March 29, 1899 5597

Committee on Finance—
Directed to audit and report for payment to Board, bills of Commission for inspection of Main Channel, January 11, 1899 5422

Committee on Finance, Reports—
Transmitting executed agreement with Chicago Bridge and Iron Company for Van Buren Street approach span, and approving bond on same, January 11, 1899 5408
In reference to reduction of bond on contract for Section F, February 1, 1899 5449
In reference to payment on contract for superstructure of Southwest Boulevard bridge, February 16, 1899 5474
Submitting ordinance providing for payment of interest on warrants against tax levy for 1899, March 1, 1899 5501

Committee on Finance, Reports— Page

In reference to having had audited books of Clerical and Treasury Departments, March 1, 1899 5502
In reference to sale of "Adam's storehouse," March 17, 1899 5574
On bid of Timothy Carroll for Sag Bridge Police Station, March 22, 1899 5584
In reference to payment to C., M. & N. R. R. Co. for easement over certain land, March 23, 1899 5590
Approving bonds of The J. G. Wagner Company on contracts for Cass and Jefferson Streets bridges, April 12, 1899 5611
Approving reduced bonds of McArthur Bros. Co. and Winston & Co. on contracts for substructure of C., M. & N. R. R. Co. bridge near east end of Section N and A., T. & S. F. Ry. Co. bridge at west end of Section N, April 19, 1899 5645
Approving reduced bond for $25,000 of Gahan & Byrne on contract for Section 18, May 3, 1899 5670
Approving bond of Chicago Bridge and Iron Company on contract for Taylor Street bridge, May 10, 1899 5979
Cancelling bond of James Reddick as Clerk of the Sanitary District, May 17, 1899 5778
Approving reduced bond of Carnegie Steel Company, Limited, on contract for superstructure of A., T. & S. F. Ry. Co. bridge near east end of Section G, May 17, 1899 5778
Approving bond of Pennsylvania Steel Company on contract for C. T. T. Ry. Co. bridge near Taylor Street, May 17, 1899 5779
Approving bond of The Toledo Bridge Company on contract for Belt Railway Company of Chicago and Chicago and Western Indiana Railroad Company bridge, May 31, 1899 5821
Approving bond of Chicago Bridge and Iron Company on contract for superstructure for G., R. I. & P. Ry. Co. bridge, June 7, 1899 5851
In reference to dismissal of suits against Paul Redieske, July 19, 1899 5933
In reference to release of bond on contract for Section 15, July 19, 1899 5936
In reference to release of bonds on contracts for superstructures of A., T. & S. F. Ry. Co. bridges on Main Channel at west end of Section N and on Section 8, July 26, 1899 5948
In reference to release of bond on contract for superstructure of Kedzie Avenue bridge on Section N, August 2, 1899 5970
In reference to release of bond on contract for superstructure of Summit and Lyons Highway bridge across Desplaines River, and on contract for building culverts and grading Romeoville Highway, August 16, 1899 5987
Approving reduced bonds of Carnegie Steel Company, Ltd., on contracts for superstructures of A., T. & S. F. Ry. Co. bridges crossing Main Channel at west end of Section N, and Section 8, September 6, 1899 6020
Approving bond of The Joliet Bridge and Iron Company on contract for superstructure for Tow-path bridge crossing River Diversion, October 4, 1899 6050
In reference to reduction of bond on contract for Section C, November 1, 1899 6108
In reference to release of bond on contract for substructure of Lockport Highway bridge crossing River Diversion on Section 16, November 28, 1899 6143
In reference to release of bond on contract for substructure of Willow Springs Highway bridge across Main Channel, December 20, 1899 6192
Transmitting ordinance for the issuance of $1,000,000 bonds, December 20, 1899 6192

Committee (Joint) on Finance and Engineering, Reports—

In reference to lease of offices in Chicago for Sanitary District, March 1, 1899 5502
In reference to release of bonds on contracts for Sections I and K, March 23, 1899 5590
In reference to purchase from C., R. I. & P. Ry. Co. certain lands in Joliet, Ill., March 23, 1899 5591
In reference to reduction of bond on contract for superstructure for C., M. & N. R. R. Co. bridge near east end Section N, March 29, 1899 5595
In reference to purchase from Sayre Rodman certain lands in Will County, Illinois, April 12, 1899 5626
In reference to sale of certain lands on South Branch of Chicago River to the United States, May 3, 1899 5671
In reference to purchase from E., J. & E. Ry. Co. certain land, June 28, 1899 5904
In reference to payment for certain lands in Joliet in accordance with court decree in case of District vs. Alanson Sweet, et al., June 28, 1899 5905
In reference to payment for certain lands in Joliet in accordance with court decree in case of District vs. The American Stone Company et al., July 5, 1899 5913
In reference to agreement with William G. and Eleanor J. Roelker for warranty deed and guarantee abstract of title to certain land, and for dock construction, July 5, 1899 5914

Committee (Joint) on Finance and Engineering, Reports— Page
In reference to purchase from James G. Elwood certain lands in Will County, Illinois, July 12, 1899 5921
Committee on Judiciary, Reports—
In reference release of judgment for $156.67 against Frances Livingston, January 11, 1899 5406
In reference release of sureties on bonds of contracts for superstructure of E., J. & E. Ry. Co. bridge and substructure of Southwest Boulevard bridge, January 18, 1899 5430
In reference to reduction of bonds on contracts for substructures of C., M. & N. R. R. Co. and A., T. & S. F. Ry. Co. (at west end of Section N) bridges, January 18, 1899 .. 5431
Disallowing claim of E. S. Reed against Donald Fraser, January 25, 1899 5441
In reference to claim of The Canal Commissioners for $212.25 against Sanitary District for damages and tolls, February 8, 1899 5459
On communication from Stein & Platt in reference to judgment for $156.67 against Frances Livingston, March 23, 1899 5589
Committee (Joint) on Judiciary and Finance, Reports—
In reference to reduction of bond on contract for substructure of Kedzie Avenue bridge, January 18, 1899 5431
Committee on Resolutions, Reports—
Transmitting resolutions in the memory of Richard Prendergast, August 17, 1899 5992
Committee on Rules—
Directed to consider Rule 1 of Rules of Order and report, January 25, 1899 5442
Authorized to have printed a compilation of rules as amended, March 1, 1899 5565
Authorized to have printed 500 copies of first volume of proceedings of Sanitary District, March 1, 1899 5505
Committee on Rules, Reports—
In reference to Rule 1 of Rules of Order and Rule 3 of Rules and Regulations, laid over one week, February 1, 1899 5450
Report above referred to adopted, February 15, 1899 5472
In reference to Rules 13 and 14 of Rules and Regulations, laid over one week, March 1, 1899 5504
Report above referred to adopted, March 8, 1899 5566
In reference to title of Engineer of Bridges and Bridge Construction, May 10, 1899 .. 5696
In reference to suspension of Rule 3 of Rules and Regulations, May 10, 1899 5696
In reference to Rule 37 of Rules and Regulations, laid over, July 5, 1899 5915
Report above referred to adopted, July 12, 1899 5921
Committee (Special) for conducting conferences on behalf of Sanitary District, in reference to organization of sewage district from Seventy-fifth Street south to Eighty-seventh Street, appointed, February 1, 1899 5446
Committees, appointment of, for 1899-1900, December 13, 1899 6161
Consulting Engineer, Thomas T. Johnston—
Report from Chief Engineer transmitting communication from, in reference to capacity of Chicago River, November 22, 1899 6125
Contracts—(*See Agreements.*)
Controlling Works—(*See Regulating Works.*)
Coogan, William—
Report of Clerk in reference to re-depositing with Treasurer uncalled pay envelope of, November 1, 1899 6093
Copperas Creek Dam—
Report of Joint Committee on Federal Relations and Engineering recommending appointment of special committee of three to remove, October 18, 1899 6084
Special committee above referred to, consisting of Trustees Jones, Carter and Braden, appointed by the President, October 25, 1899 6087
Cosmopolitan Electric Company, Report of Committee on Engineering in reference to claim of, for damages to building and plant, March 29, 1899 5600

DAMS—

Bear Trap—(*See Regulating Works.*)
Copperas Creek—
Report of Joint Committee on Federal Relations and Engineering recommending appointment of special committee of three to remove, October 18, 1899 6084
Special committee above referred to, consisting of Trustees Jones, Carter and Braden, appointed by the President, October 25, 1899 6087

Dams— Page
Henry—
Report of Joint Committee on Federal Relations and Engineering recommending appointment of special committee of three to remove, October 18, 1899 6084
Special committee above referred to, consisting of Trustees Jones, Carter and Braden, appointed by the President, October 25, 1899 6087
Kampsville—
Order directing Joint Committee on Federal Relations and Engineering to investigate removal of, June 14, 1899 5876
La Grange—
Order directing Joint Committee on Federal Relations and Engineering to investigate removal of, June 14, 1899 5876
Decoration Day, May 30, 1899, office of Sanitary District ordered closed, May 24, 1899 5818
Deep Water-Way Convention—
Resolution in reference to, to be held at Peoria, Ill., referred to Joint Committee on Federal Relations and Engineering, September 20, 1899 6033
Report on same, October 4, 1899 6060
Democratic National Committee—
Inspection of Main Channel by, referred to Committee on Engineering with power to act, July 19, 1899 5941
Diaz, General Porfirio—
Resolution inviting, July 26, 1899 5949
Donahoe, John T.—
Report of Joint Committee on Finance and Engineering on payment to, for certain land, in accordance with court decree, June 28, 1899 5905

ECKHART, BERNARD A.—
Elected temporary Chairman, February 23, 1899 5479
Appointed member of committee to prepare resolutions in the memory of Richard Prendergast, August 17, 1899 5991
Temporary Chairman during election of President, December 5, 1899 6154
Economy Light and Power Company—
Bid of, on development and lease of water-power opened and referred to Committee on Engineering, August 23, 1899 6011
Communication from, asking return of check deposited with bid for development and lease of water-power, referred to Committee on Engineering with power to act, September 6, 1899 6020
Report of Committee on Engineering in reference to execution of deed for certain lands to, November 8, 1899 6116
Report of Clerk in reference to execution and delivery of deed for certain lands to, November 22, 1899 6124
Eight-track Bridge—
Report of Committee on Engineering in reference to agreement with A., T. & S. F. Ry. Co. for temporary occupation of right of way for use of, May 31, 1899 5888
Report of Clerk transmitting agreement above referred to, July 19, 1899 5933
Agreement above referred to, July 19, 1899 5933
Report of Committee on Engineering in reference to assignment by The Scherzer Rolling Lift Bridge Co. to McArthur Bros. Co. for contract for substructure of, July 12, 1899 5923
Report of Attorney transmitting said assignment, consent of The City Trust, Safe Deposit and Surety Co. of Philadelphia to said assignment, consent of Sanitary District, waiver by assignor of claims for damages, and acceptance by assignee of said assignment, July 12, 1899 5924
Consent of The City Trust, Safe Deposit and Surety Co. of Philadelphia to said assignment, July 12, 1899 5925
Consent of Sanitary District to said assignment, July 12, 1899 5925
Waiver of all claims by said assignor arising out of said contract, July 12, 1899 5926
Acceptance by assignee of said assignment, July 12, 1899 5926
Report of Committee on Engineering in reference to re-adjustment of prices on contract with McArthur Bros. Co. for substructure for, July 12, 1899 5927
Order of Chief Engineer re-adjusting prices on contract for substructure for, July 12, 1899 5929
Order directing President to purchase cement for use of substructure for, July 19, 1899 5941
Message from President transmitting agreement with Thomas Moulding Co. for purchase of cement for use of substructure for, July 26, 1899 5944
Agreement above referred to printed in full, July 26, 1899 5945

Eight-Track Bridge— Page
Order directing President and Clerk to arrange for extension of time for completing, on contracts with C. J. Ry. Co., C. T. T. R. R. Co., and P., C., C. & St. L. Ry., December 13, 1899 6185
Report of Chief Engineer in reference to payment for force account work employed by McArthur Bros. Co. for District at, December 27, 1899 6220
Election of William Boldenweck as President, December 5, 1899 6154
Elgin, Joliet and Eastern Railway Company—
Report of Committee on Judiciary releasing sureties on bond for contract for bridge superstructure, January 18, 1899 5430
Report of Joint Committee on Finance and Engineering in reference to purchase from, certain land, June 28, 1899 5904
Elwood, James G.—
Report of Joint Committee on Finance and Engineering in reference to payment to, for certain land in accordance with court decree, June 28, 1899 5905
Report of Joint Committee on Finance and Engineering in reference to purchase from, certain lands in Will County, Ill., July 12, 1899 5921
Emergency Fund for Clerical Department—
Two thousand five hundred dollars additional allowed, November 1, 1899 6110
Emergency Fund for Law Department—
Two thousand dollars additional allowed, March 23, 1899 5592
Three thousand dollars additional allowed, November 15, 1899 6122
Employes, Report on number of—(*See Clerical Department.*)
Engineering Department—
Annual report for 1898, May 17, 1899 5704
Monthly report for December, 1898, referred to Committee on Engineering, February 15, 1899 5472
Report on same, February 23, 1899 5481
Monthly report above referred to printed in full, February 23, 1899 5481
Monthly report for January 1899, March 8, 1899 5510
Monthly report for February, 1899, April 19, 1899 5630
Monthly report for March, 1899, April 26, 1899 5651
Monthly report for April, 1899, May 24, 1899 5797
Monthly report for May, 1899, June 28, 1899 5889
Monthly report for June, 1899, August 2, 1899 5953
Monthly report for July, 1899, August 23, 1899 5994
Monthly report for August, 1899, September 26, 1899 6089
Monthly report for September, 1899, November 1, 1899 6093
Monthly report for October, 1899, December 13, 1899 6166
Monthly report for November, 1899, December 27, 1899 6204
Semi-annual property return ending December 31, 1898, May 3, 1899 5669
Engineer of Bridges and Bridge Construction—
Report of Committee on Engineering on employment of W. M. Hughes to take charge of the bridge construction, May 3, 1899 5672
Report of Committee on Rules in reference to title of, May 10, 1899 5696
Examination of Waters of Rivers and Canal—(*See Analyses of Waters of Rivers and Canal.*)

FALL FESTIVAL DAYS of week commencing October 9, 1899, offices of Sanitary District ordered closed as may be deemed advisable by President, October 4, 1899 6061
Fidelity and Deposit Company of Maryland—
Report of Committee on Engineering on communication from, in reference to release of surety on bond of Wright, Mysenburg, Sinclair & Carry on contract for Section 15, May 24, 1899 5815
Final Certificates of Chief Engineer—
Carnegie Steel Company, Ltd., on superstructure A., T. & S. F. Ry. Co. bridge near east end of Section G, referred to Committee on Engineering, February 8, 1899 5457
Report on same presented and recommitted to said Committee, February 16, 1899 5476
Report on same, April 12, 1899 5626
Final certificate above referred to printed in full, April 12, 1899 5627
Carnegie Steel Company, Ltd., on superstructure A., T. & S. F. Ry. Co. bridge at west end of Section N, June 14, 1899 5875
Report of Committee on Engineering on same, June 14, 1899 5875

Final Certificates of Chief Engineer— Page
Carnegie Steel Company, Ltd., on superstructure A., T. & S. F. Ry. Co. bridge across Main Channel on Section 8, June 28, 1899 5909
Report of Committee on Engineering on same, June 28, 1899 5908
Christie & Lowe, on superstructure of Regulating Works at Lockport, July 12, 1899 5923
Report of Committee on Engineering on same, July 12, 1899 5922
Christie & Lowe, on contract for Section K and on verbal contract for unfinished excavation on Section L, December 27, 1899 6220
Gahan & Byrne, on contract for Section F, report of Committee on Engineering in reference to payment of, February 16, 1899 5475
Final certificate above referred to printed in full, February 16, 1899 5475
Gahan & Byrne, on contract for Section G, December 13, 1899 6182
Gahan & Byrne, on contract for Section H, December 13, 1899 6183
Griffiths & McDermott, on substructure Lockport Highway bridge crossing River Diversion on Section 16, referred to Committee on Engineering, May 3, 1899 5669
Report on same, May 10, 1899 5695
Final certificate above referred to printed in full, May 10, 1899 5695
Griffiths and McDermott Construction Company, on foundations for Bear Trap Dam and Collateral Works on Section 15, August 16, 1899 5990
Report of Committee on Engineering on same, August 16, 1899 5989
Halvorson, Richards & Co., on contract for Section E, December 27, 1899 6222
Report of Committee on Engineering on same, December 27, 1899 6220
Halvorson, Richards & Co., supplement to final certificate on contract for Section E, December 27, 1899 6223
Report of Committee on Engineering on same, December 27, 1899 6220
Hayes Bros., on substructure Wire Mills Road bridge crossing River Diversion on Section 16, referred to Committee on Engineering, May 3, 1899 5669
Report on same, May 10, 1899 5695
Final certificate above referred to printed in full, May 10, 1899 5695
Heidmaier & Neu, on substructure of Romeoville Highway bridge crossing Main Channel, November 1, 1899 6109
Report of Committee on Engineering on same, November 1, 1899 6108
Heidmaier & Neu, on substructure of C. T. T. R. R. Co. bridge over Desplaines River on Section E, November 13, 1899 6182
King Bridge Company (The), on superstructure of Kedzie Avenue bridge, May 24, 1899 5813
Report of Committee on Engineering on same, May 24, 1899 5813
McArthur Bros. Company and Winston & Co., on substructure A., T. & S. F. Ry. Co. bridge at west end of Section N, referred to Committee on Engineering, January 4, 1899 5390
Report on same, January 11, 1899 5406
Final certificate above referred to printed in full, January 11, 1899 5407
McArthur Bros. Company and Winston & Co., on substructure C., M. & N. R. R. Co. bridge near east end of Section N, across Kedzie avenue, referred to Committee on Engineering, February 8, 1899 5457
Report on same, February 16, 1899 5476
Final certificate above referred to printed in full, February 16, 1899 5477
McArthur Bros. Company and Winston & Co., on substructure of Summit and Lyons Highway bridge, May 24, 1899 5814
Report of Committee on Engineering on same, May 24, 1899 5813
McMahon & Montgomery Company et al., on Section O, referred to Committee on Engineering, February, 23, 1899 5481
Report on same, March 1, 1899 5503
Final certificate above referred to printed in full, March 1, 1899 5503
Penn Bridge Company on superstructure A., T. & S. F. Ry. Co. bridge across Desplaines River on Section 8, referred to Committee on Engineering, January 4, 1899 5391
Report on same, January 11, 1899 5406
Final certificate above referred to printed in full, January 11, 1899 5407
Sackley & Peterson, on substructure Willow Springs Highway bridge crossing Main Channel, referred to Committee on Engineering, January 4, 1899 5391
Report on same, January 14, 1899 5424
Final certificate above referred to printed in full, January 14, 1899 5424
Strobel, C. L., on superstructure of Lemont Highway bridge, April 5, 1899 5603
Report of Committee on Engineering on same, April 5, 1899 5603

Final Certificates of Chief Engineer— Page
Strobel, C. L., on superstructure of Willow Springs Highway bridge, April 5, 1899. 5604
Report of Committee on Engineering on same, April 5, 1899... 5603
Strobel, C. L., on superstructure for Willow Springs Highway bridge crossing Main Channel, July 19, 1899... 5940
Report of Committee on Engineering on same, July 19, 1899... 5939
Strobel, C. L., on superstructure for Lemont Highway bridge crossing Main Channel, July 19, 1899... 5940
Report of Committee on Engineering on same, July 19, 1899... 5939
Strobel, C. L., on superstructure for Summit and Lyons Highway bridge crossing Main Channel, July 19, 1899... 5941
Report on Committee on Engineering on same, July 19, 1899... 5939
Toledo Bridge Company (The), on superstructure of C., M. & N. R. R. Co. bridge, May 24, 1899... 5813
Report of Committee on Engineering on same, May 24, 1899... 5813
Wagner Company, The J. G., on superstructure of Southwest boulevard and Western avenue bridge, June 7, 1899... 5870
Report of Committee on Engineering on same, June 7, 1899... 5869
Wisconsin Bridge and Iron Company, on superstructure of Lockport Highway bridge, August 2, 1899... 5971
Report of Committee on Engineering on same, August 2, 1899... 5970
Wisconsin Bridge and Iron Company, on superstructure of Wire Mills bridge crossing River Diversion, September 13, 1899... 6029
Report of Committee on Engineering on same, September 13, 1899... 6028
Wisconsin Bridge and Iron Company, on Superstructure of C. T. T. R. R. Co. bridge crossing Desplaines River near west end of Section E, November 22, 1899... 6130
Report of Committee on Engineering on same, November 22, 1899... 6130

Final Certificate of Chief Engineer (Acting)—
Strobel, C. L., on superstructure of Romeoville Highway bridge crossing Main Channel, September 13, 1899... 6029
Report of Committee on Engineering on same, September 13, 1899... 6028

Force—Account—
Order directing payment of, September 26, 1899... 6056
Report of Chief Engineer in reference to payment for, work employed by McArthur Bros. Co. for District at Eight-track bridge, December 27, 1899... 6220

Foster, J. M.—
Report of Committee on Engineering in reference to payment of claims to, (for demurrage, etc to boats), under agreement with The Canal Commissioners, August 16, 1899... 5989

Fraser, Donald, Report of Committee on Judiciary disallowing claim of E. S. Reed against, January 25, 1899... 5441

GAHAN & BYRNE—
Communication from, in reference to release of bond on contract for Section F, referred to Committee on Finance, January 25, 1899... 5442
Report on same, February 1, 1899... 5449
Report of Committee on Engineering in reference to final payment of, on contract for Section F, February 16, 1899... 5475
Final certificate for, on Section F, February 16, 1899... 5475
Report of Chief Engineer transmitting communication from The City Trust, Safe Deposit and Surety Company of Philadelphia for release of bond of, on contract for Section F, referred to Committee on Engineering, March 17, 1899... 5574
Report on same, April 12, 1899... 5627
Report of Committee on Finance approving reduced bond of, for $25,000, on contract for Section 18, May 3, 1899... 5670
Report of Chief Engineer in reference to claims of, for extra compensation on contracts for Sections F, G and H, December 13, 1899... 6164
Final certificate for, on contract for Section G, December 13, 1899... 6182
Final certificate for, on contract for Section H, December 13, 1899... 6183
Resolution in reference to payment to, amount of judgment in case of Hoover & Mason against, December 13, 1899... 6185

Gilbert, Charles C., Attorney—(*See Attorney.*)

Griffiths & McDermott— Page
Report of Chief Engineer transmitting bill of sale from American Bridge Works to, for steel in By-Pass along Chicago River, and asking authority for a payment of $32,000.00 on account, March 23, 1899 5589
Chief Engineer's final certificate on substructure Lockport highway bridge crossing River Diversion on Section 16, referred to Committee on Engineering, May 3, 1899 5669
Report on same, May 10, 1899 5695
Final certificate above referred to printed in full, May 10, 1899 5695
Report of Committee on Engineering in reference to readjustment of prices on contract with, for superstructure for By-pass along Chicago River, July 12, 1899 5927
Order of Chief Engineer to, readjusting prices on contract for superstructure for By-pass along Chicago River, July 12, 1899 5928
Report of Committee on Finance in reference to release of bond of, contract for substructure of Lockport Highway bridge crossing River Diversion on Section 16, November 28, 1899 6243

Griffiths and McDermott Construction Company—
Report of Committee on Engineering in reference to final certificate for, on contract for foundations for Bear Trap Dam and Collateral Works, August 16, 1899 5989
Final certificate above referred to, August 16, 1899 5990

HAAS, JOSEPH F., CLERK—(*See Clerk.*)

Halvorson, Richards & Co.—
Communication from Angus & Gindele in reference to payment by, certain claims against Section E, referred to Joint Committee on Judiciary and Engineering, March 22, 1899 5585
Report of Committee on Engineering on same, December 27, 1899 6220
Report of Committee on Engineering in reference to final certificate (and the supplement thereto) for, on contract for Section E, December 27, 1899 6220
Final certificate above referred to, December 27, 1899 6220
Supplement to the final certificate above referred to, December 27, 1899 6223

Hayes Bros.—
Chief Engineer's final certificate on substructure Wire Mills road bridge crossing River Diversion on Section 16, referred to Committee on Engineering, May 3, 1899. 5669
Report on same, May 10, 1899 5695
Final certificate above referred to printed in full, May 10, 1899 5695
Order directing President and Clerk to pay to, $4,000.00 out of reserve percentage on Section N, November 1, 1899 6109

Heidmaier & Neu—
Report of Chief Engineer transmitting award settling claims of, on Section 17, January 25, 1899 5440
Order directing Clerk to pay to, $10,000.00 out of reserve percentage on Section 17, October 12, 1899 6075
Report of Committee on Engineering in reference to final certificate for, on contract for substructure of Romeoville Highway bridge crossing Main Channel, November 1, 1899. 6108
Final certificate above referred to, November 1, 1899 6109
Final certificate for, on substructure of C. T. T. R. R. Co. bridge over Desplaines River on Section E, November 13, 1899 6182
Report of Chief Engineer in reference to additional payment to, on contract for substructure of C. T. T. R. R. Co. bridge over Desplaines River on Section E, December 20, 1899. 6191

Henry Dam—
Report of Joint Committee on Federal Relations and Engineering recommending appointment of a special committee of three to remove, October 18, 1899 6084
Special committee above referred to, consisting of Trustees Jones, Carter and Braden, appointed by the President, October 25, 1899 6087

Higgins, Amanda D.—
Report of Joint Committee on Finance and Engineering on payment to, for certain land in accordance with court decree, June 28, 1899 5905

Hogan, Martin J.—
Report of Committee on Engineering in reference to payment of claim to, (for demurrage, etc., to boats), under agreement with The Canal Commissioners, August 16, 1899 5989

Holidays— Page
Decoration Day, May 30, 1899, offices of Sanitary District ordered closed, May 24, 1899. 5818
Fall Festival Days of week commencing October 9, 1899, offices of Sanitary District ordered closed as may be deemed advisable by President, October 4, 1899 6061
Independence Day, July 4, 1899, offices of Sanitary District ordered closed, June 28, 1899 5910
Labor Day, September 4, 1899, offices of Sanitary District ordered closed, August 30, 1899 6016
Lincoln's Birthday, February 13, 1899, offices of Sanitary District ordered closed, February 8, 1899 5459
Prendergast, Richard, offices of Sanitary District ordered closed on day of funeral of, August 17, 1899 5992
Saturdays at noon, offices of Sanitary District ordered closed on, from April 22, 1899, to September 30, 1899, April 19, 1899 5646
Washington's Birthday, February 22, 1899, offices of Sanitary District ordered closed, February 8, 1899 5459
Hoover & Mason—
Resolution in reference to payment to Gahan & Byrne amount of judgment in case of, against Gahan & Byrne on account of delay in giving possession of A., T. & S. F. Ry. Co. right of way on Sections G and H, December 13, 1899 6185
House, Addie Eliza—
Report of Joint Committee on Finance and Engineering on payment to, for certain land in accordance with court decree, June 28, 1899 5905
Howell, Edwin E.—
Report of Committee on Engineering in reference to agreement for models of Sanitary District Channel and Works for Paris Exposition, May 24, 1899 5816
Hughes, W. M.—
Report of Committee on Engineering on employment of, to take charge of the bridge construction, May 3, 1899 5672
Report of Committee on Rules in reference to title of, May 10, 1899 5696
Hunt & Co., R. W.—
Report of Committee on Engineering authorizing Chief Engineer to employ, on mill and shop inspection of C. T. T. R. R. Co. bridge near Taylor Street, October 12, 1899 6074

ILLINOIS AND MICHIGAN CANAL—(*See Canal Commissioners, The.*)
Independence Day, July 4, 1899, offices of Sanitary District ordered closed, June 28, 1899.... 5910
Inspection of Main Channel by Commissioners—(*See Special Commissioners Chicago Drainage Canal.*)
Intercepting Sewers—
Report of Committee on Engineering in reference to agreement with City of Chicago for maintenance of pumping station for, south of Seventy-fifth street, June 28, 1899 5907

JACKSON STREET, JOLIET, ILLINOIS—
Report of Committee on Engineering transmitting ordinance accepting ordinance passed by the City Council of Joliet relating to bridge repair at, October 18, 1899 6080
Ordinance accepting ordinance passed by City Council of Joliet relating to bridge repair at, October 18, 1899 6081
Ordinance passed by City Council of Joliet relating to bridge repair at, October 18, 1899.... 6081
Report of Committee on Engineering transmitting ordinance accepting amended ordinance passed by City Council of Joliet relating to bridge repair at, December 13, 1899 6183
Ordinance accepting amended ordinance passed by City Council of Joliet relating to bridge repair at, December 13, 1899 6184
Amended ordinance passed by City Council of Joliet relating to bridge repair at, December 13, 1899 6184
Jefferson Street, Joliet, Illinois—
Report of Clerk transmitting executed agreement with Joliet Railroad Company for temporary crossing Desplaines River at, March 1, 1899 5499
Agreement above referred to, March 1, 1899 5499
Bids on bridge sub and superstructure for, opened and referred to Committee on Engineering, March 17, 1899 5576
Bids above referred to tabulated, March 17, 1899 5578
Report on same, March 29, 1899 5596

Jefferson Street, Joliet, Illinois— Page
Communication from The Toledo Bridge Company in reference to bridge bid on, referred to Committee on Engineering, March 17, 1899 5576
Report on same, March 29, 1899 5598
Communication from The Toledo Bridge Company asking return of check in consideration of waiver of claims on account of bridge bid for, March 29, 1899 5598
Report of Committee on Finance approving bond of The J. G. Wagner Company on bridge contract for, April 12, 1899 5611
Agreement with The J. G. Wagner Company for bridge sub and superstructure for, April 12, 1899 5612
Report of Committee on Engineering transmitting ordinance accepting ordinance passed by City Council of Joliet relating to the bridge construction at, October 18, 1899 6080
Ordinance accepting ordinance passed by City Council of Joliet relating to the bridge construction at, October 18, 1899 6081
Ordinance passed by City Council of Joliet relating to the bridge construction at, October 18, 1899 6081
Report of Committee on Engineering transmitting ordinance accepting amended ordinance passed by City Council of Joliet relating to the bridge construction at, December 13, 1899 6183
Ordinance accepting amended ordinance passed by City Council of Joliet relating to the bridge construction at, December 13, 1899 6184
Amended ordinance passed by City Council of Joliet relating to the bridge construction at, December 13, 1899 6184
Johnston, Thomas T.—(*See Chief Engineer, Acting, and Consulting Engineer.*)
Joliet Bridge and Iron Company, The—
Bid of, on Tow-path Bridge crossing River Diversion, opened and referred to Committee on Engineering, September 20, 1899 6033
Bid above referred to tabulated, September 20, 1899 6034
Report on same, September 26, 1899 6054
Report of Committee on Finance approving bond of on contract for Tow-path Bridge crossing River Diversion, October 4, 1899 6059
Report of Clerk transmitting executed agreement with, for superstructure for Tow-path Bridge crossing River Diversion, October 12, 1899 6066
Agreement above referred to, October 12, 1899 6066
Joliet, City of—
Report of Committee on Engineering transmitting ordinance accepting ordinance passed by Council of, relating to the construction of bridges, October 18, 1899 6080
Ordinance accepting ordinance passed by Council of, relating to the construction of bridges, October 18, 1899 6081
Ordinance passed by Council of, relating to the construction of bridges, October 18, 1899 6081
Report of Committee on Engineering transmitting ordinance accepting amended ordinance passed by Council of, relating to the construction of bridges, December 13, 1899 6183
Ordinance accepting amended ordinance passed by Council of, relating to the construction of bridges, December 13, 1899 6184
Amended ordinance passed by Council of, relating to the construction of bridges, December 13, 1899 6184
Joliet Public Library—Report of Committee on Engineering granting permission to president of, to remove historic mill stone from Desplaines River in Joliet, Illinois, October 12, 1899 6075
Joliet Railroad Company—
Report of Committee on Engineering in reference to agreement with, for temporary crossing Desplaines River, January 25, 1899 5442
Report of Clerk transmitting agreement with, for temporary crossing Desplaines River, at Jefferson Street, Joliet, Ill., March 1, 1899 5499
Agreement with, for temporary crossing Desplaines River, at Jefferson street, Joliet, Ill., March 1, 1899 5499
Jones, Alexander J.—
Communication from, asking to be recorded in the affirmative on adoption report Committee on Engineering, in reference to Belt Railway Company of Chicago and C. & W. I. R. R. Co., January 4, 1899 5393
Appointed member of Special Committee for conducting conferences on behalf of Sanitary District in reference to organization of sewage district from Seventy-fifth street to Eighty-seventh street, February 1, 1899 5446
Appointed member of committee to prepare resolutions in the memory of Richard Prendergast, August 17, 1899 5991

Jones, Alexander J.— Page
Appointed member of Special Committee for removal of dams at Henry and Copperas Creek, October 25, 1899 6067
Elected temporary chairman, November 15, 1899 6119

KAMPSVILLE DAM—
Order directing Joint Committee on Federal Relations and Engineering to investigate removal of, June 14, 1899 5876
Kedzie Avenue—
Report of Joint Committee on Judiciary and Finance reducing bond of Chicago Star Construction and Dredging Company on contract for bridge substructure, January 18, 1899 5431
Communication from The City Trust, Safe Deposit and Surety Company of Philadelphia in reference to release of bond of Chicago Star Construction and Dredging Company on contract for bridge substructure for, on Section N, referred to Joint Committee on Finance and Engineering, March 22, 1899 5585
Report of Committee on Engineering in reference to final certificate for The King Bridge Company on bridge superstructure for, May 24, 1899 5813
Final certificate above referred to, May 24, 1899 5813
Communication from The City Trust, Safe Deposit and Surety Company of Philadelphia in reference to release of bond of The King Bridge Company on contract for bridge superstructure for, referred to Committee on Finance, July 12, 1899 5923
Report on same, August 2, 1899 5970
King Bridge Company, The—
Bids of, on sub and superstructures of Chicago Terminal Transfer Railway Company and Taylor Street bridges, opened and referred to Committee on Engineering, April 26, 1899 5664
Bids above referred to tabulated, April 26, 1899 ..... A5665
Report on same, May 3, 1899 5672
Bid of, on sub and superstructure of Belt Railway Company of Chicago and Chicago and Western Indiana Railroad Company bridge, opened and referred to Committee on Engineering, May 10, 1899 5696
Bids above referred to tabulated, May 10, 1899 5698
Report on same, May 24, 1899 5817
Report of Committee on Engineering in reference to final certificate for, on contract for superstructure for Kedzie Avenue bridge, May 24, 1899 5813
Final certificate above referred to, May 24, 1899 5813
Bid of, on superstructure of Chicago, Rock Island and Pacific Railway Company bridge opened, May 31, 1899 5840
Bid above referred to tabulated, May 31, 1899 5841
Communication from the City Trust, Safe Deposit and Surety Company of Philadelphia in reference to release of bond of, on contract for superstructure of Kedzie Avenue bridge, referred to Committee on Finance, July 12, 1899 5923
Report on same, August 2, 1899 5970
Bid of, on Tow-path Bridge crossing River Diversion, opened and referred to Committee on Engineering, September 20, 1899 6033
Bid above referred to tabulated, September 20, 1899 6034
Report on same, September 26, 1899 6054

LABOR DAY, September 4, 1899, offices of Sanitary District ordered closed, August 30, 1899 6016
Lafayette Bridge Company, The—
Bid of, on superstructure of Chicago, Rock Island and Pacific Railway Company bridge opened, May 31, 1899 5840
Bid above referred to tabulated, May 31, 1899 5841
LaGrange Dam—
Order directing Joint Committee on Federal Relations and Engineering to investigate removal of, June 14, 1899 5876
Lambert, John—(*See Special Commissioners Chicago Drainage Canal.*)
Law Department—
Annual report for 1898, March 8, 1899 5524
Monthly report for December, 1898, January 11, 1899 5404
Monthly report for January, 1899, February 23, 1899 5480

Law Department— Page
Monthly report for February, 1899, March 22, 1899 5583
Monthly report for March, 1899, April 12, 1899 5610
Monthly report for April, 1899, May 17, 1899 5703
Monthly report for May, 1899, June 21, 1899 5881
Monthly report for June, 1899, July 26, 1899 5947
Monthly report for July, 1899, August 16, 1899 5986
Monthly report for August, 1899, September 13, 1899 6027
Monthly report for September, 1899, October 25, 1899 6089
Monthly report for October, 1899, November 22, 1899 6129
Monthly report for November, 1899, December 20, 1899 6190
Order allowing $2,000 additional as emergency fund, March 23, 1899 5592
Order allowing $3,000 additional as emergency fund, November 15, 1899 6122
Semi-annual property return to January 2, 1899, January 14, 1899 5424
Semi-annual property return to July 1, 1899, July 26, 1899 5947
Lease of offices in Chicago for Sanitary District, Report of Joint Committee on Finance and Engineering in reference to, March 1, 1899 5502
Lemont Highway—
Chief Engineer's report in reference to payment of Sackley & Peterson on contract for bridge substructure across Main Channel of, referred to Committee on Engineering, February 8, 1899 5457
Report on same, February 16, 1899 5474
Report of Chief Engineer above referred to printed in full, February 16, 1899 5475
Report of Committee on Engineering in reference to final certificate for C. L. Strobel on bridge superstructure for, April 5, 1899 5603
Final certificate above referred to printed in full, April 5, 1899 5603
Report of Committee on Engineering in reference to final certificate for C. L. Strobel on bridge superstructure for, July 19, 1899 5939
Final certificate above referred to printed in full, July 19, 1899 5940
Communication from Highway Commissioners of Town of Lemont in reference to Stephens Street, referred to Committee on Engineering, August 23, 1899 6010
Communication from The City Trust, Safe Deposit and Surety Company of Philadelphia in reference to release of bond of C. L. Strobel on contract for bridge superstructure for, referred to Committee on Finance, October 18, 1899 6085
Lemont Improvement Association—
Communication from, in reference to purchase or lease from District certain grounds for industrial purposes, referred to Committee on Engineering, June 14, 1899 5877
Lincoln's birthday, February 13, 1899, offices of Sanitary District ordered closed, February 8, 1899 5459
Livingston, Frances—
Report Committee on Judiciary in reference to release of judgment for $156.67, January 11, 1899 5406
Communication from Stein & Platt asking release of judgment for $156.67 against, referred to Committee on Judiciary, March 1, 1899 5505
Report on same, March 23, 1899 5589
Lockport Highway—
Chief Engineer's final certificate on bridge substructure of, crossing River Diversion on Section 16, for Griffiths & McDermott, referred to Committee on Engineering, May 3, 1899 5669
Report on same, May 10, 1899 5695
Final certificate above referred to printed in full, May 10, 1899 5695
Report of Committee on Engineering in reference to final certificate for Wisconsin Bridge and Iron Co. on bridge superstructure for, August 2, 1899 5970
Final certificate above referred to printed in full, August 2, 1899 5971
Report of Committee on Finance in reference to release of bond of Griffiths & McDermott on contract for bridge substructure of, crossing River Diversion on Section 16, November 28, 1899 6143
Lyons and Summit Highway—(*See Summit and Lyons Highway.*)

MADDEN & SAWYER—
Majority and minority reports of Committee on Engineering on proposition from, to collect $2,600.00 taxes, May 31, 1899 5839

Main Channel— Page
Permit from R. A. Alger, Secretary of War, for connection of Chicago River with, May 10, 1899 5676
Preliminary report by Special Commissioners Chicago Drainage Canal of some of the conclusions reached on adequacy of construction of the, November 28, 1899 6135
Reply by Board of Trustees to report above referred to, November 28, 1899 6140
Maintenance of Bridges—(*See Capitalization Certificates of Engineers*).
Mallette, James P.—
Appointed member of Special Committee for conducting conferences on behalf of Sanitary District in reference to organization of sewage district from Seventy-fifth Street south to Eighty-seventh Street, February 1, 1899 5446
Elected temporary chairman, February 15, 1899 5461
Elected temporary chairman, May 17, 1899 5701
Marshall, Richard—
Communication from Pease & Allen setting forth that, desires to rent lands for farm purposes, referred to Committee on Engineering, March 8, 1899 5568
Report on same, March 22, 1899 5584
Marshall, Major William L.—
Report of Joint Committee on Finance and Engineering in reference to sale of certain lands on South Branch of Chicago River to United States, May 3, 1899 5671
Communication from, in reference to payment by the United States for the "Spry tract," November 8, 1899 6117
Report of Clerk in reference to payment by United States for "Spry tract," November 15, 1899 6123
Resolution in reference to, November 22, 1899 6130
Mason & Hoover - (*See Hoover & Mason.*)
Massillon Bridge Company—
Communication asking release of bond on contract for bridge superstructure across Desplaines River of Summit and Lyons Highway, referred to Joint Committee on Finance and Judiciary, January 11, 1899 5422
Report of Committee on Finance on same, August 16, 1899 5987
Bids of, on sub and superstructures of Chicago Terminal Transfer Railway Co. and Taylor Street bridges, opened and referred to Committee on Engineering, April 26, 1899 5664
Bids above referred to tabulated, April 26, 1899 ..... A5665
Report on same, May 3, 1899 5672
Bid of, on sub and superstructure of Belt Railway Company of Chicago and Chicago and Western Indiana Railroad Company bridge, opened and referred to Committee on Engineering, May 10, 1899 5696
Bid above referred to tabulated, May 10, 1899 5698
Report on same, May 24, 1899 5817
Bid of, on superstructure of C., R. I. & P. Ry. Co. bridge, opened May 31, 1899 5840
Bid above referred to tabulated, May 31, 1899 5841
Bid of, on Tow-path bridge crossing River Diversion, opened and referred to Committee on Engineering, September 20, 1899 6083
Bid above referred to tabulated, September 20, 1899 6084
Report on same, September 26, 1899 6054
McArthur Brothers Company—
Report of Committee on Engineering in reference to assignment by The Scherzer Rolling Lift Bridge Company to, of contract for substructure of eight-track bridge, July 12, 1899. 5923
Report of Attorney transmitting assignment by The Scherzer Rolling Lift Bridge Company to, of contract for substructure of eight track bridge, consent of The City Trust, Safe Deposit and Surety Company of Philadelphia to said assignment, consent of Sanitary District to said assignment, waiver by The Scherzer Rolling Lift Bridge Company of claims for damages, and acceptance and agreement of McArthur Bros. Co., July 12, 1899. 5924
Assignment above referred to, July 12, 1899 5924
Consent of The City Trust, Safe Deposit and Surety Company of Philadelphia above referred to, July 12, 1899 5925
Consent of Sanitary District above referred to, July 12, 1899 5925
Waiver by The Scherzer Rolling Lift Bridge Company of claims for damages above referred to, July 12, 1899 5926
Acceptance and agreement of McArthur Bros. Co. of said assignment above referred to, July 12, 1899 5926
Report of Committee on Engineering in reference to readjustment of prices on contract with, for substructure of eight-track bridge, July 12, 1899 5927

Page

McArthur Brothers Company—
Order of Chief Engineer readjusting prices on contract for substructure of eight-track bridge, July 12, 1899 5929
Report of Chief Engineer in reference to payment for force account work employed by, for District at Eight-track Bridge, December 27, 1899 6220

McArthur Bros. Company and Winston & Company—
Chief Engineer's final certificate on substructure A., T. & S. F. Ry. Co. bridge at west end of Section N, referred to Committee on Engineering, January 4, 1899 5390
Report on same, January 11, 1899 5406
Final certificate above referred to printed in full, January 11, 1899 5407
Chief Engineer's final certificate on substructure C., M. & N. R. R. Co. bridge near east end of Section N, across Kedzie avenue, referred to Committee on Engineering, February 8, 1899 5457
Report on same, February 16, 1899 5476
Final certificate above referred to printed in full, February 16, 1899 5477
Report of Committee on Judiciary reducing bonds of, on contracts for substructures C., M. & N. R. R. Co. and A., T. & S. F. Ry. Co. (west end Section N) bridges, January 18, 1899 5431
Report of Committee on Finance approving reduced bond of, on contracts for substructures of C., M. & N. R. R. Co. bridge near east end of Section N, and A., T. & S. F. Ry. Co. bridge at west end of Section N, April 19, 1899 5615
Report of Committee on Engineering in reference to final certificate for, on contract for substructure of Summit and Lyons Highway bridge, May 24, 1899 5813
Final certificate above referred to, May 24, 1899 5814

McMahon & Montgomery Company et al.—
Chief Engineer's final certificate on Section O, referred to Committee on Engineering, February 23, 1899 5481
Report on same, March 1, 1899 5508
Final certificate above referred to printed in full, March 1, 1899 5508
Report of Clerk in reference to refusal of, to accept and receipt for vouchers (in payment of final reserve on Section O) and transmitting order setting forth manner of payment and receipt for same, March 8, 1899 5566
Order in reference to same, March 8, 1899 5566
Report of Chief Engineer in reference to claims of, for extra compensation on Section O, July 19, 1899 5985

Meetings—
Discontinuance of, Saturday, Board, January 25, 1899 5442
Report of Committee on Rules in reference to having Board, every Wednesday, May 10, 1899 5696

Metropolitan West Side Elevated Railway Company—
Report of Committee on Engineering on agreement with, for construction and maintenance of By-pass, etc., March 17, 1899 5575
Report of Committee on Engineering transmitting agreements with, and with Pennsylvania Company and said Elevated Railway Company for By-pass, June 7, 1899 5859
Agreement with, for By-pass, June 7, 1899 5860
Agreement with Pennsylvania Company and, for By-pass, June 7, 1899 5863

Mexico, President of—
Resolution inviting, July 26, 1899 5949

Mill Stone—
Report of Committee on Engineering granting permission to Egbert Phelps to remove historic, from Desplaines River in Joliet, Ill., October 12, 1899 6075

Mimeograph—Clerical Department authorized to purchase, September 6, 1899 6015

Moulding Company, Thomas—*(See Thomas Moulding Company.)*

NORTON, J. L.—*(See Economy Light and Power Company.)*

OLIVER, DAVID—
Report of Committee on Engineering transmitting agreements with, for conveying certain land, and for water-power and motor for transmission of water-power, June 7, 1899 5866
Agreement with, for conveying certain land and for water-power, June 7, 1899 5866
Agreement with, for motor for transmission of water-power, June 7, 1899 5869

Orders— Page

Directing that Governor Tanner be notified of completion of Main Channel, and to appoint commission to inspect same, January 11, 1899 5422
Clerk to draw warrants against 1898 tax levy, and method warrants less than $50.00 shall be drawn, January 18, 1899 5432
In reference to manner of payment, and receipt for same, of final reserve on Section O for McMahon & Montgomery Co. et al., March 8, 1899 5566
Directing Attorney to institute condemnation proceedings for right of way across C., S. F. & C. Ry. in Section 20-37-11 and at Stephens Street crossing in Lemont, Ill., and elevate said Company's tracks, etc., March 8, 1899 5569
Directing President and Clerk to deposit certain money and execute supplemental agreement with C., R. I. & P. Ry. Co. for bridge construction at Joliet, Ill., March 22, 1899 5585
Directing Clerk to draw warrant for $2,000 as additional emergency fund for Law Department, March 23, 1899 5592
Directing payment of semi-annual interest due May 1, 1899, on bonds of first issue, April 19, 1899 5647
Directing payment of semi-annual rental due May 1, 1899, to Pennsylvania Company, under agreement for By-pass along Chicago River, April 19, 1899 5647
Directing execution of necessary conveyances for certain lands for Romeoville Highway, April 19, 1899 5647
Directing the leasing of lands of the Sanitary District, April 19, 1899 5648
Directing the closing of offices on Saturdays at noon from April 22, 1899, to September 30, 1899, April 19, 1899 5648
Directing payment of Will County taxes, April 26, 1899 5664
Directing the closing of offices on Decoration Day, May 30, 1899, May 24, 1899 5818
Directing Joint Committee on Federal Relations and Engineering to investigate removal of LaGrange and Kampsville Dams, June 14, 1899 5876
Directing President and Clerk to advertise for bids for development and leasing of water-power, June 21, 1899 5886
Directing payment maturing bonds of 3d issue and semi-annual interest on 2d, 3d, 4th, 5th, 6th, 7th and 8th issues, June 28, 1899 5910
Directing payment of annual rental due June 1, 1899, to The Chicago & Alton R. R. Co. under agreement for by-pass along Chicago River, June 28, 1899 5910
Directing President to purchase cement for use of substructure of Eight-Track Bridge, July 19, 1899 5941
Directing Clerk to pay Special Commissioners' pay-roll and bills incurred July, 1899, August 2, 1899 5974
Directing modification of proposals received for the development of water-power, August 23, 1899 6010
Directing the closing of offices on Labor Day, September 4, 1899, August 30, 1899 6016
Directing Clerk to pay Special Commissioners' pay-roll and bills incurred August, 1899, September 6, 1899 6022
Directing Clerk to pay Special Commissioners' pay-rolls and bills incurred September, 1899, September 26, 1899 6055
Directing President and Clerk to draw a warrant for $2,000.00 for payment of pay-rolls of Force Account, September 26, 1899 6056
Directing Clerk to pay Heidmaier & Neu $10,000.00 out of reserve percentage on Section 17, October 12, 1899 6075
Directing payment of maturing bonds of first issue and semi-annual interest due November 1, 1899, on said issue, October 25, 1899 6090
Directing payment of semi-annual rental due November 1, 1899, to Pennsylvania Company, under agreement for By-pass along Chicago River, October 25, 1899 6090
Directing President and Clerk to pay Hayes Bros. $4,000.00 out of reserve percentage on Section N, November 1, 1899 6109
Directing Clerk to pay Special Commissioners' pay-roll and bills incurred October, 1899, November 1, 1899 6109
Directing Clerk to draw warrant for $2,500.00 as additional emergency fund for Clerical Department, November 1, 1899 6110
Directing President and Clerk to draw warrant for $3,000.00 as additional emergency fund for Law Department, November 15, 1899 6122
Directing Clerk to pay Special Commissioners' pay-roll and bills incurred November, 1899, December 6, 1899 6159

Orders— Page
Directing President and Clerk to arrange for extension of time for completing Eight-track Bridge on contracts with C. J. Ry. Co., C. T. T. R. R. Co., and P., C., C. & St. L. Ry., December 18, 1899 6185
Directing payment maturing bonds of 2d, 4th, 5th and 6th issues and semi-annual interest on 2d, 3d, 4th, 5th, 6th, 7th and 8th issues, December 20, 1899 6194

Ordinances—
For tax levy of 1899, February 23, 1899 5496
For payment of interest on 1899 tax levy warrants, March 1, 1899 5501
For Stephen Street subway at Lemont, Ill., April 19, 1899 564
For construction of bridge and highway at Romeoville, Ill., May 31, 1899 5836
For appropriation of $25,000 for use of Special Commissioners Chicago Drainage Canal for payment of salaries and other bills, June 8, 1899 5845
For construction of Cass and Jefferson Streets bridges and repair of Jackson Street bridge in Joliet, Illinois, October 18, 1899 6081
For change of plans in construction of Cass and Jefferson Streets bridges and repair of Jackson Street bridge in Joliet, Ill., December 18, 1899 6184
For $1,000,000 3½ per cent currency bonds (ninth issue), December 20, 1899 6192

PAN HANDLE RAILROAD COMPANY—*(See Eight-Track Bridge)*

Paris Exposition in 1900—
Report of Committee on Engineering in reference to agreement for models of Sanitary District Channel and Works for, May 24, 1899 5816

ks, Samuel S.—
Report of Joint Committee on Finance and Engineering on payment to, for certain land in accordance with court decree, June 23, 1899 5905

Payette, Edward—
Report of Committee on Engineering in reference to claim of, against Sanitary District, February 1, 1899 5450

Pay Rolls—
For January, 1899, February 1, 1899 5445
For February, 1899, March 1, 1899 5497
For March, 1899, March 29, 1899 5593
For April, 1899, May 3, 1899 5667
For May, 1899, May 31, 1899 5819
For June, 1899, June 28, 1899 5887
For July, 1899, August 2, 1899 5951
For August, 1899, August 30, 1899 6018
For September, 1899, September 26, 1899 6086
For October, 1899, November 1, 1899 6091
For November, 1899, November 28, 1899 6134
For December, 1899, December 20, 1899 6187

Pay Rolls of Special Commissioners—
For July, 1899, August 2, 1899 5978
For August, 1899, September 6, 1899 6021
For September, 1899, September 26, 1899 6055
For October, 1899, November 1, 1899 6110

Pease & Allen—
Communication from, setting forth that Richard Marshall desires to rent lands for farm purposes, referred to Committee on Engineering, March 8, 1899 5568
Report on same, March 22, 1899 5584

Penn Bridge Company—
Chief Engineer's final certificate on superstructure of Atchison, Topeka and Santa Fe Railway Company bridge across Desplaines River on Section 8, referred to Committee on Engineering, January 4, 1899 5391
Report on same, January 11, 1899 5406
Final certificate above referred to printed in full, January 11, 1899 5407
Bid of, on Tow-path bridge crossing River Diversion, opened and referred to Committee on Engineering, September 20, 1899 6083
Bid above referred to tabulated, September 20, 1899 6084
Report on same, September 26, 1899 6054

Page

Pennsylvania Company, Operating the Pittsburgh, Fort Wayne and Chicago Railway—
Order directing payment to, semi-annual rental due May 1, 1899, under agreement for By-Pass along Chicago River, April 19, 1899 5647
Report of Committee on Engineering transmitting agreements with The Metropolitan West Side Elevated Railway Company, and with, and said Elevated Railway Company for By-Pass, June 7, 1899 5859
Agreement with, and The Metropolitan West Side Elevated Railway Company for By-Pass, June 7, 1899 5863
Order directing payment to, semi-annual rental due November 1, 1899, under agreement for By-pass along Chicago River, October 25, 1899 6090

Pennsylvania Steel Company, The—
Bids of, on sub and superstructures of Chicago Terminal Transfer Railway Company and Taylor Street bridges opened and referred to Committee on Engineering, April 26, 1899 5664
Bids above referred to tabulated, April 26, 1899 ..... A5665
Report on same, May 8, 1899 5672
Report of Committee on Finance approving bond of, for contract for Chicago Terminal Transfer Railway Company bridge near Taylor Street, May 17, 1899 5779
Agreement for sub and superstructure of Chicago Terminal Transfer Railway Company bridge, May 17, 1899 5779
Bid of, on sub and superstructure of Belt Railway Company of Chicago and Chicago and Western Indiana Railroad Company bridge opened and referred to Committee on Engineering, May 10, 1899 5696
Bid above referred to tabulated, May 10, 1899 5698
Report on same, May 24, 1899 5817
Bid of, on Tow-path bridge crossing River Diversion, opened and referred to Committee on Engineering, September 20, 1899 6033
Bid above referred to tabulated, September 20, 1899 6034
Report on same, September 26, 1899 6054

Peoria Deep Water-Way Convention—(*See Deep Water-Way Convention*)

Permit from R. A. Alger, Secretary of War, for connection of Main Channel with Chicago River, May 10, 1899 5675

Peterson, P.—
Report of Committee on Engineering in reference to agreement with, for removal of Western Avenue Pontoon Bridge, May 24, 1899 5812

Phelps, Egbert—
Report of Committee on Engineering granting permission to, to remove historic mill stone from Desplaines River in Joliet, Ill., October 12, 1899 6075

Phœnix Bridge Company, The—
Bid of, on Tow-path bridge crossing River Diverson, opened and referred to Committee on Engineering, September 20, 1899 6033
Bid above referred to tabulated, September 20, 1899 6034
Report on same, September 26, 1899 6054

Pigarsch, Albert—
Communication from, applying for grass and crop on certain lands on Section D, referred to Committee on Engineering, March 8, 1899 5568
Report on same, March 22, 1899 5584

Pittsburgh, Cincinnati, Chicago & St. Louis Railway—
Order directing President and Clerk to arrange for extension of time for completing Eight-track bridge on contract with, December 13, 1899 6185

Police Department—
Annual report for 1898, January 11, 1899 5402

Pollution of Waters of Rivers and Canal—(*See Analyses of Waters of Rivers and Canal*)

Prendergast, Richard—
Appointment by President of committee to prepare resolutions in the memory of, August 17, 1899 5991
Report of Committee on Resolutions transmitting resolutions, August 17, 1899 5992
Resolutions above referred to, August 17, 1899 5992

President Authorized or Ordered and Directed—
To execute (with Clerk) release of judgment for $156.67 against Frances Livingston, January 11, 1899 5406
To make (with Clerk) final payment on contracts for substructure A., T. & S. F. Ry. Co. bridge at west end of Section N, and superstructure A., T. & S. F. Ry. Co. bridge across Desplaines River on Section 8, January 11, 1899 5406

President Authorized or Ordered and Directed— Page

To execute (with Clerk) agreement for extension of time on supplemental agreement with Chicago Junction Railway Company, January 11, 1899 5408
To transmit (with Clerk) copy of order directing inspection of Main Channel by Commission to be appointed by Governor Tanner, January 11, 1899 5422
To make (with Clerk) final payment on contract for substructure of Willow Springs Highway bridge crossing Main Channel, January 14, 1899 5424
To execute (with Clerk) agreement for temporary crossing Desplaines River with Joliet Railroad Company, January 25, 1899 5442
To make (with Clerk) final payment on contract for substructure of Lemont Highway bridge crossing Main Channel, February 16, 1899 5474
To make (with Clerk) final payment on contract for Section F, February 16, 1899 5475
To make (with Clerk) final payment on contract for substructure of C., M. & N. R. R. Co. bridge, February 16, 1899 5476
To execute (with Clerk) release of judgment for $156.67 against Frances Livingston, March 23, 1899 5589
To execute (with Clerk) lease with Security Deposit Company for offices for Sanitary District in Chicago, March 1, 1899 5502
To make payment (with Clerk) of certain sums to McMahon & Montgomery Company et al. upon latter filing bond for the unwatering of Section O, March 1, 1899 5503
To sign (with Clerk) frontage petition for Chicago and Desplaines Valley Electric Railway Company to operate railway on Summit and Lyons Road, March 8, 1899 5567
To execute (with Clerk) agreements with Chicago and Desplaines Valley Electric Railway Company for right of way privileges, maintenance of bridge over Main Channel and for maintenance of flagman, March 8, 1899 5568
To execute (with Clerk) papers for transfer of "Adams storehouse," March 17, 1899 5574
To execute (with Clerk) agreement with Metropolitan West Side Elevated Railway Company for construction and maintenance of By-pass, etc., March 17, 1899 5575
To execute (with Clerk) leases to Albert Pigarsch, Richard Marshall and other persons for lands in Sections A, B, C, and D, March 22, 1899 5584
To deposit (with Clerk) certain money, and execute (with Clerk) supplemental agreement with C., R. I. & P. Ry. Co. for bridge construction at Joliet, Illinois, March 22, 1899 5585
To make payment (with Clerk) to C., M. & N. R. R. Co. for easement over certain land, March 23, 1899 5590
To execute (with Clerk) deed for exchange of certain lands with C., S. F. & C. Ry. Co., March 29, 1899 5596
To execute (with Clerk) contracts with the J. G. Wagner Company for sub and superstructures of Jefferson and Cass street bridges in Joliet, Ill., March 29, 1899 5598
To make (with Clerk) payment to Cosmopolitan Electric Company for damages to building and plant, March 29, 1899 5600
To make (with Clerk) final payment on contracts for superstructures of Lemont and Willow Springs highway bridges crossing Main Channel, April 5, 1899 5603
To make (with Clerk) final payment on contract for superstructure of A., T. & S. F. Ry. Co. bridge near east end of Section G, April 12, 1899 5626
To pay (with Clerk) semi-annual rental due May 1, 1899, to Pennsylvania Company under agreement for by-pass along Chicago River, April 19, 1899 5647
To execute (with Clerk) necessary conveyances for certain lands for Romeoville highway and release damages sustained by reason of the establishment of said highway, April 19, 1899 5647
To lease (with Clerk) lands of the Sanitary District, April 19, 1899 5648
To make (with Clerk) payment to Chester A. Allen in full settlement for lands and damages, April 26, 1899 5664
To execute (with Clerk) agreements and warranty deed to the United States for certain lands on the South Branch of Chicago River, May 3, 1899 5671
To enter (with Clerk) into contracts with Pennsylvania Steel Company and Chicago Bridge and Iron Company for sub and superstructures of C. T. T. Ry. Co. and Taylor street bridges, May 3, 1899 5672
To employ W. M. Hughes to take charge of the bridge construction, May 3, 1899 5672
To make (with Clerk) final payments on contracts for substructures of Lockport Highway and Wire Mills Road bridges on Section 16, May 10, 1899 5695
To enter (with Clerk) into agreement with P. Peterson for removal of Western avenue pontoon bridge, May 24, 1899 5812

President Authorized or Ordered and Directed— Page

To make (with Clerk) final payments on contracts for superstructures of Kedzie Avenue Highway and C., M. & N. R. R. Co. and substructure of Summit and Lyons Highway bridges, May 24, 1899 5813

To pay (with Clerk) to C., M. & N. R. R. Co. indemnity for repairs and maintenance of bridges, May 24, 1899 5814

To execute (with Clerk) contract with The Toledo Bridge Company for sub and superstructure of Belt Railway Company of Chicago and Chicago and Western Indiana Railroad Company bridge, May 24, 1899 5817

To execute (with Clerk) agreement with A., T. & S. F. Ry. Co. for temporary occupation of right of way for use of eight-track bridge, May 31, 1899 5838

To execute (with Clerk) contract with Chicago Bridge and Iron Company for superstructure of C., R. I. & P. Ry. Co. bridge, May 31, 1899 5840

To pay (with Clerk) to Belt Railway Company of Chicago indemnity for repairs and maintenance of bridge, June 7, 1899 5850

To execute (with Clerk) agreements with The Metropolitan West Side Elevated Railway Company, and with Pennsylvania Company and said Elevated Railway Company, for By-pass, June 7, 1899 5859

To execute (with Clerk) agreements with David Oliver for conveying certain land, for water power, and for motor for transmission of water power, June 7, 1899 5866

To make (with Clerk) final payment on contract for superstructure of Southwest Boulevard and Western Avenue bridge, June 7, 1899 5869

To make (with Clerk) final payment on contract for superstructure of A., T. & S. F. Ry. Co. bridge at west end of Section N, June 14, 1899 5875

To pay (with Clerk) to A., T. & S. F. Ry. Co. et al. ("Santa Fe System") indemnity for repairs and maintenance of bridge at west end of Section N, June 14, 1899 5876

To execute (with Clerk) agreement with American Steel and Wire Company of New Jersey for conveying certain land, for water power and for motor for transmission of water power, June 21, 1899 5882

To advertise (with Clerk) for bids for development and leasing of water power, June 21, 1899 5886

To execute (with Clerk) agreement with City of Chicago for maintenance of pumping station south of Seventy-fifth Street, June 28, 1899 5907

To pay (with Clerk) annual rental due June 1, 1899, to The Chicago and Alton Railroad Company, under agreement for By-pass along Chicago River, June 28, 1899 5910

To execute (with Clerk) agreement with William G. and Eleanor J. Roelker for warranty deed and guarantee abstract of title to certain land and for dock construction, July 5, 1899 5914

To make (with Clerk) final payment on contract for superstructure of Regulating Works at Lockport, July 12, 1899 5922

To execute (with Clerk) consent of Sanitary District to assignment by The Scherzer Rolling Lift Bridge Company to McArthur Bros. Company, and deliver same after all papers have been executed, July 12, 1899 5928

To pay (with Clerk) to Dr. Arthur Reynolds $300.00 per month on account of streams examination, July 19, 1899 5939

To make (with Clerk) final payments on contracts for superstructure of Willow Springs, Lemont and Summit and Lyons Highway bridges crossing Main Channel, July 19, 1899 5939

To purchase cement for use of substructure of eight-track bridge, July 19, 1899 5941

To make (with Clerk) final payment on contract for superstructure of Lockport Highway bridge, August 2, 1899 5970

To sign (with Clerk) lease with Security Deposit Co. for quarters for Cement Testing Department, August 2, 1899 5972

To execute (with Clerk) agreement with Chicago Junction Ry. Co. for transfer of C. T. T. R. R. Co. tracks, August 2, 1899 5972

To make (with Clerk) final payment on contract for foundations of Bear Trap Dam and collateral works, August 16, 1899 5989

To make arrangements for Board and officers to attend in a body the funeral of Richard Prendergast, August 17, 1899 5992

To execute (with Clerk) agreement with City of Chicago for construction of Canal Street bridge, August 30, 1899 6015

To pay (with Clerk) final certificate on contracts for bridge superstructure of Wire Mills Road crossing River Diversion and Romeoville Highway crossing Main Channel, September 13, 1899 6028

President Authorized or Ordered and Directed— Page
To execute (with Clerk) contract with The Joliet Bridge and Iron Company for superstructure of Tow-path bridge crossing River Diversion, September 26, 1899 6054
To draw (with Clerk) warrant for payment of pay-rolls of Force Account, September 26, 1899 6056
To close (under direction of Committee on Engineering) offices of Sanitary District on such days of Fall Festival week as may be deemed advisable, and postpone Board meeting, October 4, 1899 6061
To file (with Clerk) with City Clerk of Joliet acceptance of ordinance for construction of Cass and Jefferson Street bridges, and repair of Jackson Street bridge, October 18, 1899 6081
To pay (with Clerk) semi-annual rental, due November 1, 1899 to Pennsylvania Company, under agreement for By-pass along Chicago River, October 25, 1899 6090
To make (with Clerk) final payment on contract for substructure of Romeoville Highway bridge crossing Main Channel, November 1, 1899 6108
To pay (with Clerk) Hayes Bros. $4,000 out of reserve percentage on Section N, November 1, 1899 6109
To execute and deliver (with Clerk) deed for certain lands to Economy Light and Power Company, November 8, 1899 6116
To draw (with Clerk) warrant for $3,000 as additional emergency fund for Law Department, November 15, 1899 6122
To make (with Clerk) final payment on contract for superstructure of C. T. T. R. R. Co. bridge crossing Desplaines River, November 22, 1899 6130
To arrange (with Clerk) for extension of time for completing Eight-track bridge on contracts with C. J. Ry. Co., C. T. T. R. R. Co., and P., C., C. & St. L. Ry., December 13, 1899 6185
To execute (with Clerk) agreement with the Canal Commissioners for maintenance of "Summit Level," December 21, 1899 6197
To pay (with Clerk) certain claims against Angus & Gindele, December 27, 1899 6220

President William Boldenweck—
Message from, in reference to organization of sewage district, from 75th street south to 87th street, referred to Special Committee of three, February 1, 1899 5446
Special Committee appointed by, February 1, 1899 5446
Message from, transmitting letters from Secretary of War in reference to permits for construction of coffer-dam at Adams street, temporary and permanent bridges for C. T. T. R. R. Co., and permanent bridge for Taylor street, March 22, 1899 5581
Letters above referred to printed in full, March 22, 1899 5582
Call by, for special meeting of Board of Trustees, March 23, 1899 5587
Call by, for special meeting of Board of Trustees, May 3, 1899 5667
Message from, transmitting permit from Acting Secretary of War for construction of temporary coffer-dam between Adams and Van Buren streets for by-pass, May 17, 1899 5702
Message from, transmitting agreement with Thomas Moulding Company for purchase of cement for use of substructure of eight-track bridge, July 26, 1899 5944
Agreement above referred to printed in full, July 26, 1899 5945
Appoints Messrs. Eckhart, Jones and Smyth a committee to prepare resolutions in the memory of Richard Prendergast, August 17, 1899 5991
Message from, in reference to removal of bridge across Illinois and Michigan Canal at Sag, Illinois, October 18, 1899 6077
Message from, appointing Messrs. Jones, Carter and Braden a Special Committee for Removal of Dams at Henry and Copperas Creek, October 25, 1899 6087
Annual message from, December 5, 1899 6145
Re-elected, December 5, 1899 6154
Appointment by, of committees for 1899-1901, December 13, 1899 6161

Proceedings of Sanitary District—
Committee on Rules authorized to have printed 500 copies of first volume of, March 1, 1899 ..... 5 05

Public Library of Joliet—(*See Joliet Public Library.*)

QUALEY CONSTRUCTION COMPANY—
Supplement to the final certificate of Chief Engineer to Halvorson, Richards & Co. on contract for Section E recommending claim of, against Angus & Gindele be paid in conformity to assignment made by said Angus & Gindele, December 27, 1899 6223

RANDOLPH, ISHAM, CHIEF ENGINEER—(*See Chief Engineer.*) Page
Reddick, James, Report of Committee on Finance cancelling bond of, May 17, 1899..... 5778
Redieske, Paul—
Report of Committee on Finance in reference to dismissal of suits against, July 19, 1899.... 5938
Report of Clerk in reference to account of, July 26, 1899..... 5946
Reed, E. S., Report of Committee on Judiciary disallowing claim of, against Donald Fraser, January 25, 1899..... 5441
Regulating Works—
Report of Committee on Engineering in reference to final certificate for Christie & Lowe on contract for superstructure of, July 12, 1899..... 5922
Final certificate above referred to, July 12, 1899..... 5923
Report of Committee on Engineering in reference to final certificate for Griffiths & McDermott Construction Co. on contract for foundations, August 16, 1899..... 5989
Final certificate above referred to, August 16, 1899..... 5990
Requisitions—
Clerical Department—
No. 1,096 (stationery), allowed, January 25, 1899..... 5434
No. 1,097 (stationery), allowed, March 29, 1899..... 5594
No. 1,098 (stationery), allowed, August 9, 1899..... 5981
No. 1,099 (stationery), allowed, September 20, 1899..... 6083
No. 1,102 (sundry supplies) allowed, November 15, 1899..... 6121
No. 1,103 (file boxes and fittings), allowed, November 22, 1899..... 6124
No. 1,104 (typewriter, etc.), allowed, November 22, 1899..... 6135
No. 1,105 (file boxes), allowed, December 6, 1899..... 6156
Engineering Department—
No. 591 (quarterly supplies), referred to Committee on Engineering, January 18, 1899..... 5431
Report allowing same, January 25, 1899..... 5441
No. 592 (quarterly supplies), allowed, April 26, 1899..... 5650
No. 593 (quarterly supplies), allowed, July 19, 1899..... 5933
No. 594 (quarterly supplies), allowed, October 4, 1899..... 058
General Account—
No. 1,100 (paint materials), allowed, October 12, 1899..... 6066
No. 1,101 (3,000 copies Revised History and cuts for same), allowed, November 1, 1899.... 6093
No. 1,106 (sundry supplies, "Str. Juliet"), allowed, December 20, 1899..... 6189
Law Department—
No. 826 (stationery), allowed, January 4, 1899..... 5390
No. 827 (electric lights, etc.), allowed, February 1, 1899..... 5447
No. 828 (copies of legislative bills, etc.), allowed, February 8, 1899..... 5456
No. 829 (stationery), allowed. May 10, 1899..... 5677
No. 830 (stationery), allowed, September 6, 1899..... 6018
No. 841 (stationery), allowed, October 4, 1899..... 6058
No. 832 (supplies), allowed, November 8, 1899..... 6115
Police Department—
No. 961 (kerosene), allowed, March 17, 1899..... 5572
No. 962 (sundry supplies), allowed, June 21, 1899..... 5880
No. 963 (coal), allowed, September 6, 1899..... 6018
No. 964 (sundry supplies), allowed, September 13, 1899..... 6025
No. 965 (supplies), allowed, November 8, 1899..... 6115
No 966 (1 bbl. kerosene), allowed, December 13, 1899..... 6164
Resolutions—
Inviting President of Mexico, July 26, 1899..... 5949
In memory of Richard Prendergast, August 17, 1899..... 5892
In reference to Deep Water-way Convention to be held at Peoria, Ill., referred to Joint Committee on Federal Relations and Engineering, September 20, 1899..... 6083
Report on same, October 4, 1899..... 6060
In reference to inspection of Main Channel by Congressmen, October 18, 1899..... 6085
In reference to Major William L. Marshall, Corps of Engineers, U. S. A., November 22, 1899 6130
In reference to payment to Gahan & Byrne amount of judgment in case of Hoover & Mason vs. Gahan & Byrne, December 13, 1899..... 6185
Reynolds, Dr. Arthur R.—
Report of Joint Committee on Federal Relations and Health and Public Order on having secured services of, as director for investigation of waters, March 29, 1899. 5597
Order in reference to same, March 29, 1899..... 5597

Reynolds, Dr. Arthur R.— Page
Report of Committee on Engineering in reference to advancing monthly payment to, on account of streams examination, July 19, 1899 5939

Rodman, Sayre—
Report of Joint Committee on Finance and Engineering in reference to purchase from, certain lands in Will County, Illinois, April 12, 1899 5626

Roelker, William G. and Eleanor J.—
Report of Joint Committee on Finance and Engineering in reference to agreement with, for warranty deed and guarantee abstract of title to certain land, and for dock construction, July 5, 1899 5914

Romeville Highway—
Order directing execution of necessary conveyances for certain lands for, April 19, 1899. 5647
Report of Committee on Engineering transmitting ordinance for bridge and highway construction at, May 31, 1899 5836
Ordinance above referred to, May 31, 1899 5836
Report of Committee on Finance in reference to release of bond of Daniel Sullivan on contract for building culverts and grading for, August 16, 1899 5987
Acting Chief Engineer's final certificate on bridge superstructure of, crossing Main Channel for C. L. Strobel, September 13, 1899 6029
Report of Committee on Engineering on same, September 18, 1899 6028
Communication from The City Trust, Safe Deposit and Surety Company of Philadelphia in reference to release of bond of C. L. Strobel on contract for bridge superstructure for, referred to Committee on Finance, October 8, 1899 6085
Chief Engineer's final certificate on bridge substructure of, crossing Main Channel for Heldmaier & Neu, November 1, 1899 6109
Report of Committee on Engineering on same, November 1, 1899 6108

Rules and Regulations, and Rules of Order—
Amendment of Rule 1 of Rules of Order referred to Committee on Rules, January 25, 1899 5442
Report on same, laid over one week, February 1, 1899 5450
Report above referred to adopted, February 15, 1899 5472
Amendment of Rule 3 of Rules and Regulations, report of Committee on Rules on, laid over one week, February 1, 1899 5450
Report above referred to adopted, February 15, 1899 5472
Amendments of Rules 13 and 14 of Rules and Regulations, report of Committee on Rules on, laid over for one week, March 1, 1899 5504
Report above referred to adopted March 8, 1899 5566
Committee on, authorized to have printed compilation of Rules as amended, March 1, 1899 5505
Suspension of Rule 3 of Rules and Regulations until further order, May 10, 1899 5696
Amendment of Rule 37 of Rules and Regulations, report of Committee on Rules on, laid over, July 5, 1899 5915
Report above referred to adopted, July 12, 1899 5921

SACKLEY & PETERSON—
Chief Engineer's final certificate on substructure Willow Springs Highway bridge crossing Main Channel, referred to Committee on Engineering, January 4, 1899. 5391
Report on same, January 14, 1899 5424
Final certificate above referred to printed in full, January 14, 1899 5424
Chief Engineer's report in reference to payment of, on contract for substructure Lemont Highway bridge across Main Channel, referred to Committee on Engineering, February 8, 1899 5457
Report on same, February 19, 1899 5474
Report of Chief Engineer above referred to printed in full, February 16, 1899 5475
Report of Committee on Finance releasing bond of, on contract for substructure of Willow Springs Highway bridge across Main Channel, December 20, 1899 6192

Sag Bridge Police Station Building—
Communication from Timothy Carroll in reference to purchase of, referred to Committee on Finance, February 8, 1899 5459
Report on same, March 22, 1899 5584

Sag, Illinois, bridge over Illinois and Michigan Canal—Message from President in reference to removal of, October 18, 1899 6077

Page

Sanitary District vs. American Stone Company (The), et al—Report of Joint Committee on Finance and Engineering on payment for certain lands, in accordance with court decree in case of, July 5, 1899 5913

Sanitary District vs. Schuster et al.—Report of Attorney transmitting refunded court costs in case of, April 26, 1899 5650

Sanitary District vs. Sweet (Alanson) et al.—Report of Joint Committee on Finance and Engineering on payment for certain lands in accordance with court decree in case of, June 28, 1899 5905

Santa Fe Railway Company—(*See Atchison, Topeka & Santa Fe Railway Company.*)

Scherzer Rolling Lift Bridge Company, The—

Report of Committee on Engineering in reference to assignment by, to McArthur Bros. Company of contract for substructure of Eight-Track Bridge, July 12, 1899 5923

Report of Attorney transmitting assignment by, to McArthur Bros. Company of contract for substructure of Eight-Track Bridge, consent of The City Trust, Safe Deposit and Surety Company of Philadelphia to said assignment, consent of Sanitary District to said assignment, waiver by The Scherzer Rolling Lift Bridge Company of claims for damages, and acceptance and agreement of McArthur Bros. Company, July 12, 1899 5924

Assignment above referred to, July 12, 1899 5924

Consent of The City Trust, Safe Deposit and Surety Company of Philadelphia above referred to, July 12, 1899 5925

Consent of Sanitary District above referred to, July 12, 1899 5925

Waiver by The Scherzer Rolling Lift Bridge Company of claims for damages above referred to, July 12, 1899 5926

Acceptance and agreement of McArthur Bros. Company of said assignment above referred to, July 12, 1899 5926

Schoch, Al. F., Secretary—(*See Special Commissioners Chicago Drainage Canal.*)

Schuster et al. ads. Sanitary District—Report of Attorney transmitting refunded court costs in case of, April 26, 1899 5650

Secretary of War, R. A. Alger—

Message from President transmitting letters from, in reference to permits for construction of coffer-dam at Adams Street, temporary and permanent bridges for C. T. T. R. R. Co. and permanent bridge for Taylor Street, March 22, 1899 5581

Letters above referred to printed in full, March 22, 1899 5582

Permit from, for connection of Main Channel with Chicago River, May 10, 1899 5675

Secretary of War, Acting—

Message from President transmitting permit from, for construction of temporary coffer-dam between Adams and Van Buren Streets for By-pass, May 17, 1899 5702

Section A—Report of Committee on Engineering on communication from Albert Pigarsch and Pease & Allen, attorneys for Richard Marshall, leasing lands on, et al., March 22, 1899 5584

Section B—

Report of Committee on Engineering on communications from Albert Pigarsch and Pease & Allen, attorneys for Richard Marshall, leasing lands on, et al., March 22, 1899 5584

Section C—

Report of Committee on Engineering on communications from Albert Pigarsch and Pease & Allen, attorneys for Richard Marshall, leasing lands on, et al., March 22, 1899 5584

Report of Committee on Finance in reference to reduction of bond of Western Dredging and Improvement Company, on contract for, November 1, 1899 6108

Section D—

Communication from Albert Pigarsch applying for grass and crop on certain lands on, referred to Committee on Engineering, March 8, 1899 5568

Report on same, March 22, 1899 5584

Section E—

Communication from Angus & Gindele in reference to payment by Halvorson, Richards & Co., certain claims against, referred to Joint Committee on Judiciary and Engineering, March 22, 1899 5585

Report of Committee on Engineering on same, December 27, 1899 6220

Report of Committee on Engineering in reference to final certificate (and the supplement thereto) for Halvorson, Richards & Co., on contract for, December 27, 1899 6220

Final certificate above referred to, December 27, 1899 6222

Supplement to the final certificate above referred to, December 27, 1899 6223

Section F— Page

Communication from Gahan & Byrne in reference to release of bond on contract for, referred to Committee on Finance, January 25, 1899 5442

Report on same, February 1, 1899 5449

Report of Committee on Engineering in reference to final payment of Gahan & Byrne on contract for, February 16, 1899 5475

Final certificate of Chief Engineer for Gahan & Byrne on contract for, February 16, 1899 5475

Chief Engineer's report transmitting communication from The City Trust, Safe Deposit and Surety Company of Philadelphia for release of bond of Gahan & Byrne on contract for, referred to Committee on Engineering, March 17, 1899 5574

Report on same, April 12, 1899 5627

Report of Chief Engineer in reference to claims of Gahan & Byrne for extra compensation on contracts for Sections G, H and, December 13, 1899 6164

Section G—

Report of Chief Engineer in reference to claims of Gahan & Byrne for extra compensation on contracts for Sections F, H and, December 13, 1899 6164

Final certificate for Gahan & Byrne on contract for, December 13, 1899 6182

Resolution in reference to payment to Gahan & Byrne amount of judgment in case of Hoover & Mason vs. Gahan & Byrne on account of delay in giving possession of A., T. & S. F. Ry. Co. right of way on, December 13, 1899 6185

Section H—

Report of Chief Engineer in reference to claims of Gahan & Byrne for extra compensation on contracts for Sections F, G and, December 13, 1899 6164

Final certificate for Gahan & Byrne on contract for, December 13, 1899 6183

Resolution in reference to payment to Gahan & Byrne amount of judgment in case of Hoover & Mason vs. Gahan & Byrne on account of delay in giving possession of A., T. & S. F. Ry. Co. right of way on, December 13, 1899 6185

Section I—

Communication from Christie & Lowe, requesting release of bond on contract for, referred to Joint Committee on Finance and Engineering, February 15, 1899 5472

Report on same, March 23, 1899 5590

Section K—

Communication from Christie & Lowe requesting release of bond on contract for, referred to Joint Committee on Finance and Engineering, February 15, 1899 5472

Report on same, March 23, 1899 5590

Final certificate for Christie & Lowe on contract for, December 27, 1899 6220

Section L—

Final certificate for Christie & Lowe on verbal contract for unfinished excavation on, December 27, 1899 6220

Section N—

Order directing President and Clerk to pay Hayes Bros. $4,000.00 out of reserve percentage on, November 1, 1899 6109

Section O—

Chief Engineer's final certificate on, for McMahon & Montgomery Company et al., referred to Committee on Engineering, February 23, 1899 5481

Report on same, March 1, 1899 5503

Final certificate above referred to printed in full, March 1, 1899 5503

Report of Clerk in reference to refusal of McMahon & Montgomery Company et al. to accept and receipt for vouchers (in payment of final reserve) and transmitting order setting forth manner of payment and receipt for same, March 8, 1899 5566

Order above referred to, March 8, 1899 5566

Report of Chief Engineer in reference to claims of McMahon & Montgomery Company et al. for extra compensation on, July 19, 1899 5935

Section 15—

Report of Committee on Engineering releasing surety on bond of Wright, Meysenburg, Sinclair & Carry on contract for, May 24, 1899 5815

Report of Committee on Finance in reference to release of bond on contract for, July 19, 1899 5938

Section 17—

Report of Chief Engineer transmitting award settling claims of Heidmaier & Neu on, January 25, 1899 5440

Order directing Clerk to pay Heidmaier & Neu $10,000.00 out of reserve percentage on, October 12, 1899 6075

Page

Section 18, Report of Committee on Finance approving reduced bond of Gahan & Byrne for $25,000 on contract for, May 3, 1899 5670

Security Deposit Company—
Report of Joint Committee on Finance and Engineering in reference to lease of offices from, in Chicago for Sanitary District, March 1, 1899 5502
Report of Committee on Engineering in reference to lease of quarters in Chicago from, for Cement Testing Department, August 2, 1899 5972

Smyth, Thomas A.—
Appointed member of committee to prepare resolutions in the memory of Richard Prendergast, August 17, 1899 5991

Southwest Boulevard and Western Avenue—
Report of Committee on Judiciary releasing sureties on bond of Benezette Williams for contract of bridge substructure for, January 18, 1899 5430
Report of Committee on Finance in reference to payment on contract for bridge superstructure for, February 16, 1899 5474
Report of Chief Engineer recommending payment to The J. G. Wagner Company on account of contract for bridge superstructure, May 31, 1899 5821
Report of Committee on Engineering in reference to final certificate for The J. G. Wagner Company on bridge superstructure for, June 7, 1899 5869
Final certificate above referred to, June 7, 1899 5870

Special Commissioners Chicago Drainage Canal—
Report of Joint Committee on Federal Relations and Engineering in reference to having Governor appoint, January 11, 1899 5421
Order in reference to same, January 11, 1899 5422
Communication from, asking $25,000 for payment of salaries and other bills, June 3, 1899 5844
Report of Committee on Federal Relations recommending ordinance on same, June 3, 1899 5844
Ordinance appropriating $25,000 for use of, June 3, 1899 5845
Report of Clerk on having deposited appropriation to credit of, June 14, 1899 5874
Communication from, asking the payment of transmitted pay-roll and bills incurred for July, 1899, August 2, 1899 5973
Schedule of pay-roll and bills for July, 1899, above referred to, August 2, 1899 5973
Order in reference to same, August 2, 1899 5974
Communication from, asking payment of transmitted pay-roll and bills incurred for August, 1899, September 6, 1899 6021
Schedule of pay-roll and bills for August, 1899, above referred to, September, 9, 1899. 6021
Order in reference to same, September 6, 1899 6022
Order directing Clerk to pay Special Commissioners' pay-roll and bills incurred September, 1899, September 26, 1899 6055
Schedule of pay-roll and bills for September, 1899, above referred to, September 26, 1899 6055
Order directing Clerk to pay Special Commissioners' pay-roll and bills incurred October, 1899, November 1, 1899 6109
Schedule of pay-roll and bills for October, 1899, above referred to, November 1, 1899. 6110
Preliminary report by, of some of the conclusions reached on adequacy of construction of the Main Channel, November 28, 1899 6135
Reply by Board of Trustees to report above referred to, November 28, 1899 6140
Order directing Clerk to pay Special Commissioners' pay-rolls and bills incurred November, 1899, December 6, 1899 6159
Schedule of pay-roll and bills for November, 1899, above referred to, December 6, 1899 6159

Special Meetings of Board—
Call for, by President, March 23, 1899 5587
Call for, by President, May 3, 1899 5667
Call for, by Clerk, June 3, 1899 5843
Call for, by Clerk, August 5, 1899 5975
Call for, by Acting Clerk, August 17, 1899 5991
Call for, by Clerk, September 26, 1899 6035
Call for, by Clerk, November 28, 1899 6133

Speer, James B.—
Report of Joint Committee on Finance and Engineering on payment to, for certain land in accordance with court decree, June 28, 1899 5905

"Spry Tract"— Page
Communication from Major William L. Marshall in reference to payment by the United States for the, November 8, 1899 6117
Report of Clerk in reference to payment by the United States for the, November 15, 1899.... 6122
Stein & Platt—
Communication from, asking release of judgment for $156.67 against Frances Livingston, referred to Committee on Judiciary, March 1, 1899 5505
Report on same, March 23, 1899 5589
Stephens Street (Lemont)—
Report of Chief Engineer in reference to subway at Lemont for, February 16, 1899.... 5475
Order directing Attorney to institute condemnation proceedings against C., S. F. & C. Ry. Co., for right of way, etc., for crossing, March 8, 1899 5569
Report of Committee on Engineering transmitting ordinance for subway at, April 19, 1899 5645
Ordinance above referred to, April 19, 1899 5645
Communication from Highway Commissioners of Town of Lemont in reference to, referred to Committee on Engineering, August 28, 1899 6010
Streams Examination—(*See Analyses of Waters of Rivers and Canal.*)
Streator and Third Vein Coal Company—
Claim of, against Weir, McKechney & Co., placed on file, May 10, 1899 5679
Streeter & Kenefick—(*See Section E.*)
Strobel, C. L.—
Report of Committee on Engineering in reference to final certificates for, on contracts for superstructures of Lemont and Willow Springs highway bridges, April 5, 1899 5608
Final certificates above referred to, April 5, 1899 5608
Bids of, on sub and superstructures of Chicago Terminal Transfer Railway Company and Taylor Street bridges, opened and referred to Committee on Engineering, April 26, 1899 5664
Bids above referred to tabulated, April 26, 1899 ..... A5665
Report on same, May 3, 1899 5672
Bid of, on sub and superstructure of Belt Railway Company of Chicago and Chicago and Western Indiana Railroad Company bridge, opened and referred to Committee on Engineering, May 10, 1899 5696
Bid above referred to tabulated, May 10, 1899 5698
Report on same, May 24, 1899 5817
Report of Committee on Engineering in reference to final certificates for, on contracts for superstructures of Willow Springs, Lemont, and Summit and Lyons Highway bridges crossing Main Channel, July 19, 1899 5939
Final certificates on contracts for superstructures of Willow Springs and Lemont Highway bridges above referred to, July 19, 1899 5940
Final certificate on contract for superstructure of Summit and Lyons Highway bridge above referred to, July 19, 1899 5941
Report of Committee on Engineering in reference to final certificate for, for superstructure of Romeoville Highway bridge crossing Main Channel, September 13, 1899 6028
Final certificate above referred to, September 13, 1899 6029
Bid of, on Tow-path bridge crossing River Diversion opened and referred to Committee on Engineering, September 20, 1899 6033
Bid above referred to tabulated, September 20, 1899 6034
Report on same, September 26, 1899 6054
Communication from The City Trust, Safe Deposit and Surety Company of Philadelphia in reference to release of bonds of, on contracts for superstructures of Summit and Lyons, Willow Springs, Lemont and Romeoville Highway bridges, referred to Committee on Finance, October 18, 1899 6085
Sullivan, Daniel—
Report of Committee on Finance in reference to release of bond on contract for building culverts and grading Romeoville Highway, August 16, 1899 5987
Summit and Lyons Highway—
Report of Committee on Engineering in reference to final certificate for McArthur Bros. Company and Winston & Co. on bridge substructure for, May 24, 1899 5813
Final certificate above referred to, May 24, 1899 5814
Report of Committee on Engineering in reference to final certificate for C. L. Strobel on bridge superstructure for, July 19, 1899 5939
Final certificate above referred to printed in full, July 19, 1899 5941

Page

Summit and Lyons Highway—
Communication from Massillon Bridge Company, asking release of bond on contract for bridge superstructure across Desplaines River of, referred to Joint Committee on Finance and Judiciary, January 11, 1899 5422
Report of Committee on Finance on same, August 16, 1899 5987
Communication from The City Trust, Safe Deposit and Surety Company of Philadelphia in reference to release of bond of C. L. Strobel on contract for bridge superstructure for, referred to Committee on Finance, October 18, 1899 6085

"Summit Level" Illinois and Michigan Canal- (*See Canal Commissioners, The*)

Sweet (Alanson) et al. ads. Sanitary District—Report of Joint Committee on Finance and Engineering on payment for certain lands in accordance with decree in case of, June 28, 1899 5905

TANNER, GOVERNOR JOHN R.—
Report of Joint Committee on Federal Relations and Engineering in reference to inspection of Main Channel by Commission to be appointed by, January 11, 1899 5421
Order in reference to same, January 11, 1899 5422

Taxes, Order directing payment of Will County, April 26, 1899 5664

Tax Levy for 1898—
Order directing Clerk to draw warrants against, and method warrants less than $50 shall be be drawn, January 18, 1899 5432

Tax Levy for 1899—
Ordinance for, February 23, 1899 5496
Report of Committee on Finance submitting ordinance providing for payment of interest on warrants against, March 1, 1899 5501
Ordinance above referred to, March 1, 1899 5501

Taylor, Isaac, President—(*See Special Commissioners Chicago Drainage Canal.*)

Taylor Street—
Message from President transmitting letters from Secretary of War in reference to permits for construction of permanent bridge at, etc., March 22, 1899 5581
Letters above referred to printed in full, March 22, 1899 5582
Reports (majority and minority) of Committee on Engineering in reference to postponement of opening of bids for bridge sub and superstructure, April 5, 1899 5604
Bids on bridge sub and superstructure for, opened and referred to Committee on Engineering, April 26, 1899 5664
Bids above referred to tabulated, April 26, 1899 ..... A5665
Report on same, May 3, 1899 5672
Report of Committee on Finance approving bond of Chicago Bridge and Iron Company on bridge contract for, May 10, 1899 5679
Agreement with Chicago Bridge and Iron Company for bridge sub and superstructure for, May 10, 1899 5680

Thirty-first Street Bridge—(*See Eight-Track Bridge.*)

Thomas Moulding Company—
Message from President transmitting agreement with, for purchase of cement for use of substructure of eight-track bridge, July 26, 1899 5944
Agreement above referred to printed in full, July 26, 1899 5945

Toledo Bridge Company, The—
Bids of, on sub and superstructures of Jefferson and Cass Street bridges, opened and referred to Committee on Engineering, March 17, 1899 5576
Bids above referred to tabulated, March 17, 1899 5578
Report on same, March 29, 1899 5598
Communication from, in reference to bids on Jefferson and Cass Street bridges, referred to Committee on Engineering, March 17, 1899 5576
Report on same, March 29, 1899 5598
Communication from, asking return of check in consideration of waiver of claims on account of bids for Jefferson and Cass Street bridges, March 29, 1899 5598
Communication from The City Trust, Safe Deposit and Surety Company of Philadelphia, in reference to release of bond of, on contract for superstructure for C., M. N. R. R. Co. bridge, near east end Section N, referred to Joint Committee on Finance and Engineering, March 22, 1899 5585
Report on same, March 29, 1899 5595

Toledo Bridge Company, The— Page
Bids of, on sub and superstructures of Chicago Terminal Transfer Railway Company and Taylor Street bridges opened and referred to Committee on Engineering, April 26, 1899 6645
Bids above referred to tabulated, April 26, 1899 ..... A5665
Report on same, May 3, 1899 5672
Bid of, on sub and superstructure of Belt Railway of Chicago and Chicago and Western Indiana Railroad Company bridge opened and referred to Committee on Engineering, May 10, 1899 5695
Bid above referred to tabulated, May 10, 1899 5698
Report on same, May 24, 1899 5817
Report of Committee on Finance approving bond of, on contract for Belt Railway of Chicago and Chicago and Western Indiana Railroad Company bridge, May 31, 1899 5821
Agreement for sub and superstructure for Belt Railway of Chicago and Chicago and Western Indiana Railroad Company bridge, May 31, 1899 5821
Report of Committee on Engineering in reference to final certificate for, on contract for superstructure of C., M. & N. R. R. Co. bridge, May 24, 1899 5813
Final certificate above referred to, May 24, 1899 5813
Tow-Path Bridge Crossing River Diversion—
Bids on superstructure for, opened and referred to Committee on Engineering, September 20, 1899 6033
Bids above referred to tabulated, September 20, 1899 6034
Report on same, September 26, 1899 6054
Report of Committee on Finance approving bond of The Joliet Bridge and Iron Company on contract for superstructure for, October 4, 1899 6059
Report of Clerk transmitting executed agreement with The Joliet Bridge and Iron Company for superstructure for, October 12, 1899 6066
Agreement above referred to, October 12, 1899 6066
Towne, John Deane and Norman—
Report of Joint Committee on Finance and Engineering on payment to, for certain land in accordance with court decree, June 28, 1899 5905
Treasury Department—
Annual report for 1898, February 8, 1899 5457
Monthly report for December, 1898, January 4, 1899 5391
Monthly report for January, 1899, February 8, 1899 5456
Monthly report for February, 1899, March 8, 1899 5524
Monthly report for March, 1899, April 12, 1899 5609
Monthly report for April, 1899, May 3, 1899 5669
Monthly report for May, 1899, June 7, 1899 5849
Monthly report for June, 1899, July 12, 1899 5920
Monthly report for July, 1899, August 9, 1899 5982
Monthly report for August, 1899, September 13, 1899 6027
Monthly report for September, 1899, October 18, 1899 6078
Monthly report for October, 1899, November 8, 1899 6115
Monthly report for November, 1899, December 6, 1899 6159
Report of Committee on Finance having had books of, audited, March 1, 1899 5502
Twenty-sixth Street Bridge—(*See Atchison, Topeka and Santa Fe Railway Company.*)

UNION STOCK YARD AND TRANSIT COMPANY—(*See Chicago Junction Railway Company.*)
United States—
Report of Joint Committee on Finance and Engineering in reference to sale of certain lands on South Branch of Chicago River to, May 3, 1899 5671
Permit from R. A. Alger, Secretary of War of, for connection of Main Channel with Chicago River, May 10, 1899 5675
Communication from Major William L. Marshall in reference to payment by, for "Spry tract," November 8, 1899 6117
Report of Clerk in reference to payment by, for "Spry tract," November 15, 1899 6122
Report of Clerk in reference to payment by, for certain lands on Chicago River, December 20, 1899 6189

VAN BUREN STREET APPROACH SPAN—
Report of Committee on Finance transmitting executed agreement with Chicago Bridge and Iron Company for approach span for, and approving bond on same, January 11, 1899 5408

Van Buren Street Approach Span— Page
Agreement above referred to, January 11, 1899 5409
Message from President transmitting permit from Acting Secretary of War for construction of temporary coffer-dam for by-pass between Adams and, May 17, 1899 .. 5702
Vouchers—
January 4, 1899 5389
January 14, 1899 5423
January 18, 1899 5427
January 25, 1899 5434
February 1, 1899 5445
February 8, 1899 5453
February 15, 1899 5461
February 16, 1899 5473
February 23, 1899 5479
March 1, 1899 5497
March 8, 1899 5507
March 17, 1899 5572
March 23, 1899 5587
March 29, 1899 5593
April 5, 1899 5601
April 12, 1899 5607
April 19, 1899 5629
April 26, 1899 5649
May 3, 1899 5667
May 10, 1899 5676
May 17, 1899 5702
May 24, 1899 5795
May 31, 1899 5819
June 7, 1899 5847
June 14, 1899 5871
June 21, 1899 5879
June 28, 1899 5887
July 5, 1899 5911
July 12, 1899 5917
July 19, 1899 5931
July 26, 1899 5943
August 2, 1899 5951
August 9, 1899 5979
August 16, 1899 5983
August 23, 1899 5993
August 30, 1899 6013
September 6, 1899 6017
September 13, 1899 6023
September 20, 1899 6031
September 26, 1899 6036
October 4, 1899 6057
October 12, 1899 6063
October 18, 1899 6078
October 25, 1899 6088
November 1, 1899 6091
November 8, 1899 6113
November 15, 1899 6119
November 22, 1899 6123
November 28, 1899 6134
December 6, 1899 6155
December 13, 1899 6162
December 20, 1899 6187
December 27, 1899 6203

WAGNER, J. G., Report of Committee on Judiciary, releasing sureties on bond of, on contract for superstructure E., J. & E. Ry. Co. bridge, January 18, 1899 5430
Wagner Company, The J. G.—
Report of Committee on Finance in reference to payment of, on contract for superstructure of Southwest Boulevard bridge, February 16, 1899 5474

Wagner Company, The J. G.— Page
Bids of, on sub and superstructures of Jefferson and Cass Street bridges opened and referred to Committee on Engineering, March 17, 1899 5576
Bids above referred to tabulated, March 17, 1899 5578
Report on same, March 29, 1899 5596
Report of Committee on Finance approving bonds of, on contracts for Cass and Jefferson streets bridges, April 12, 1899 5611
Agreement for sub and superstructure of Jefferson street bridge, April 12, 1899 5612
Agreement for sub and superstructure of Cass street bridge, April 12, 1899 5624
Bids of, on sub and superstructures of Chicago Terminal Transfer Railway Company and Taylor Street bridges opened and referred to Committee on Engineering, April 26, 1899 5664
Bids above referred to tabulated, April 26, 1899 ..... A5665
Report on same, May 3, 1899 5672
Bid of, on sub and superstructure of Belt Railway Company of Chicago & Chicago and Western Indiana Railroad Company bridge opened and referred to Committee on Engineering, May 10, 1899 5696
Bid above referred to tabulated, May 10, 1899 5698
Report on same, May 24, 1899 5817
Report of Chief Engineer recommending payment to, on account of contract for superstructure of Western Avenue and Southwest Boulevard bridge, May 31, 1899 5821
Bid of, on superstructure of Chicago, Rock Island & Pacific Railway Company bridge opened, May 31, 1899 5840
Bid above referred to tabulated, May 31, 1899 5841
Report of Committee on Engineering in reference to final certificate for, on contract for superstructure of Southwest Boulevard and Western Avenue bridge, June 7, 1899 5869
Final certificate above referred to, June 7, 1899 5870
Bid of, on Tow-path Bridge crossing River Diversion, opened and referred to Committee on Engineering, September 20, 1899 6033
Bid above referred to tabulated, September 20, 1899 6034
Report on same, September 26, 1899 6054

Wallace, W. H.—
Report of Committee on Engineering in reference to payment of claim to, (for demurrage, etc., to boats) under agreement with The Canal Commissioners, August 16, 1899 5989

Washington's Birthday, February 22, 1899, office of Sanitary District ordered closed, February 8, 1899 5459

Water-power—
Report of Committee on Engineering transmitting agreements with David Oliver for, and for motor for transmission of, June 7, 1899 5866
Agreement with David Oliver for, etc., June 7, 1899 5866
Agreement with David Oliver for motor for transmission of, June 7, 1899 5869
Report of Committee on Engineering transmitting agreement with American Steel and Wire Company of New Jersey for, and for motor for transmission of, June 21, 1899 5882
Agreement with American Steel and Wire Company of New Jersey for, and for motor for transmission of, June 21, 1899 5882
Report of Committee on Engineering in reference to advertising for bids for development and leasing of, June 21, 1899 5884
Order directing President and Clerk to advertise for bids for development and leasing of, June 21, 1899 5886
Order directing modification of proposals received for the development of, August 23, 1899 6010
Bids on development and lease of, opened and referred to Committee on Engineering, August 23, 1899 6011
Communication from Economy Light and Power Company asking return of check deposited with bid for development and lease of, referred to Committee on Engineering with power to act, September 6, 1899 6020
Communication from Clarence Buckingham recalling bid for development and lease of, November 8, 1899 6117

Waters of Rivers and Canal, Analyses of—(*See Analyses of Waters of Rivers and Canal.*)
Water-way Convention at Peoria, Ill.—(*See Deep Water-way Convention.*)

Page

Weir, McKechney & Co.—
Claim of Streator and Third Vein Coal Company against, placed on file, May 10, 1899... 5679

Western Avenue—
Report of Committee on Engineering in reference to agreement with P. Peterson for removal of pontoon bridge at, May 24, 1899..... 5812

Western Avenue and Southwest Boulevard—
Report of Chief Engineer recommending payment to The J. G. Wagner Company on account of contract for bridge superstructure at, May 31, 1899.... 5821
Report of Committee on Engineering in reference to final certificate for The J. G. Wagner Company on bridge superstructure for, June 7, 1899..... 5869
Final certificate above referred to, June 7, 1899..... 5870

Western Dredging and Improvement Company—
Report of Commitee on Finance in reference to reduction of bond of, on contract for Section C, November 1, 1899..... 6108

Western Indiana Railroad Company—(*See Belt Railway Company of Chicago and Chicago and Western Indiana Railroad Company.*)

White, John T.—
Report of Joint Committee on Finance and Engineering on payment to, for certain land in accordance with court decree, June 28, 1899..... 5905

Will County Taxes, Order directing payment of, April 26, 1899..... 5664

Williams, Benezette, Report of Committee on Judiciary releasing sureties on bond of, on contract for substructure of Southwest Boulevard bridge, January 18, 1899..... 5430

Williams, Carrie, Report of Joint Committee on Finance and Engineering on payment to, for certain land in accordance with court decree, June 28, 1899..... 5905

Willow Springs Highway—
Chief Engineer's final certificate on bridge substructure of, crossing Main Channel, for Sackley & Peterson, referred to Committee on Engineering, January 4, 1899.. 5391
Report on same, January 14, 1899..... 5424
Final certificate above referred to printed in full, January 14, 1899..... 5424
Report of Committee on Engineering in reference to final certificate for C. L. Strobel on bridge superstructure for, April 5, 1899..... 5603
Final certificate above referred to printed in full, April 5, 1899..... 5604
Report of Committee on Engineering in reference to final certificate for C. L. Strobel on bridge superstructure for, July 19, 1899..... 5989
Final certificate above referred to printed in full, July 19, 1899..... 5940
Communication from The City Trust, Safe Deposit and Surety Company of Philadelphia in reference to release of bond of C. L. Strobel on contract for bridge superstructure for, referred to Committee on Finance, October 18, 1899..... 6085
Report of Committee on Finance releasing bond of Sackley & Peterson on contract for bridge substructure of, across Main Channel, December 20, 1899..... 6192

Winston & Company, McArthur Brothers Company and—(*See McArthur Brothers Company and Winston & Company.*)

Wire Mills Road—
Chief Engineer's final certificate on bridge substructure of, crossing River Diversion on Section I6, for Hayes Bros., referred to Committee on Engineering, May 3, 1899..... 5669
Report on same, May 10, 1899..... 5695
Final certificate above referred to printed in full, May 10, 1899..... 5695
Report of Committee on Engineering in reference to remittance and waiver of time penalty on contract for bridge superstructure of, August 16, 1899..... 5988
Chief Engineer's final certificate on bridge superstructure of, crossing River Diversion, for Wisconsin Bridge and Iron Company, September 13, 1899..... 6029
Report of Committee on Enginereing on same, September 13, 1899..... 6028

Wisconsin Bridge and Iron Company—
Report of Chief Engineer in reference to partial payment to, on superstructure of C. T. T. Ry. Co. bridge across Desplaines River near west end of Section E, February 1, 1899..... 5448
Bid of, on superstructure of C., H. I. & P. Ry. Co. bridge, opened, May 31, 1899..... 5840
Bid above referred to tabulated, May 31, 1899..... 5841
Report of Committee on Engineering in reference to final certificate and remission of penalty on contract with, for superstructure of Lockport Highway bridge, August 2, 1899..... 5970
Final certificate above referred to, August 2, 1899..... 5971

Wisconsin Bridge and Iron Company— Page
Report of Committee on Engineering in reference to remittance and waiver of time penalty on contract for superstructure of Wire Mills Road bridge, August 16, 1899..... 5988
Report of Committee on Engineering in reference to final certificate for, for superstructure of Wire Mills Road bridge crossing River Diversion, September 13, 1899..... 6028
Final certificate above referred to, September 13, 1899..... 6028
Bid of, on Tow-path bridge crossing River Diversion, opened and referred to Committee on Engineering, September 20, 1899..... 6083
Bid above referred to tabulated, September 20, 1899..... 6084
Report on same, September 26, 1899..... 6054
Report of Committee on Engineering in reference to final certificate for, for superstructure of C. T. T. R. R. Co. bridge crossing Desplaines River near west end of Section E, November 22, 1899..... 6130
Final certificate above referred to, November 22, 1899..... 6130
Wright, Meysenburg, Sinclair & Carry—
Report of Committee on Engineering releasing surety on bond of, on contract for Section 15, May 24, 1899..... 5815
Report of Committee on Finance in reference to release of bond of, on contract for Section 15, July 19, 1899..... 5988

PROCEEDINGS

—OF THE—

BOARD OF TRUSTEES

—OF THE—

SANITARY DISTRICT OF CHICAGO.

JANUARY 4, 1899.

OFFICIAL RECORD.

Published by authority of the Board of Trustees of the Sanitary District of Chicago.

REGULAR MEETING.

The four hundred and eighteenth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Wednesday, January 4, 1899, at 2 o'clock P. M.

On roll call, Messrs. Boldenweck, Carter, Eckhart, Kelly, Mallette and Wenter—six members, were present, Mr. Braden arriving subsequently.

President Boldenweck then called the Board to order.

*VOUCHERS.

The Clerk presented the following vouchers:

CONSTRUCTION ACCOUNT.

Mason, Hoge, King & Co. (Section 8, Railroad embankment)	$ 2,142 00
Hayes Bros. (Section 16, December 31, 1898)	409 50
Hayes Bros. (Lockport Road)	206 23
Heldmaier & Neu (Section 17, December 31, 1898)	16,479 75
Gahan & Byrne (Section 18, December 31, 1898)	1,344 70
Gahan & Byrne (Section 18, Culverts, etc.)	116 18
Halvorson, Richards & Co. (Section E, December 31, 1898)	4,123 41
Halvorson, Richards & Co. (Section E, Calumet Terminal Transfer Bridge Approach)	322 38

Halvorson, Richards & Co. (Section E, Summit-Lyons Road Bridge)	$ 340 85	
Hayes Bros. et al. (Section N, December 31, 1898)	1,320 80	
Hayes Bros. et al. (Section N, Park filling)	1,693 83	
Lydon & Drews Co. (Dredging Chicago River)	11,900 44	
Lydon & Drews Co. (By-Pass Chicago River)	1,892 63	
McArthur Bros. Co. and Winston & Co. (Summit-Lyons Road Bridge)	1,237 16	
Sackley & Peterson (Lemont Highway Bridge)	1,981 43	
The King Bridge Co. (Kedzie Avenue Bridge)	12,789 00	
Chicago Star Construction and Dredging Co. (Grading Kedzie Avenue)	214 13	
Chicago Crushed Stone Co. (Summit Road grading)	291 02	
Illinois Central Railroad Co. (Freight)	50 00	
Illinois Central Railroad Co. (P. H. Temporary Bridge)	60 12	
Illinois Central Railroad Co. (C. M. & N. Bridge)	308 59	
The A., T. & S. F. Ry. Co. (Track inspection and watching)	96 25	
The A., T. & S. F. Ry. Co. (Section N Bridge)	1,034 88	
		$60,355 28

LAW DEPARTMENT.

The Gunthorp-Warren Printing Co.	1,169 96
Grand total	$61,525 24

*To be paid by warrants, with interest coupons attached, drawn against the tax levy for 1898.

Mr. Carter, seconded by Mr. Wenter, moved that the vouchers, as read and shown above, be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Carter, Eckhart, Kelly, Mallette and Wenter—six. Nays—none.

Upon this result the President declared the motion carried.

REQUISITION.

The Clerk presented the following requisition:

No. 826, Law Department, (stationery) $12 75

Mr. Mallette, seconded by Mr. Eckhart, moved that Requisition No. 826, as read and shown above, be allowed.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Carter, Eckhart, Kelly, Mallette and Wenter—six. Nays—none.

Upon this result the President declared the motion carried.

WEEKLY REPORT ON EMPLOYES.

The Clerk presented a report, in accordance with the Rules, showing the number of persons in the employ of the District for the week ending December 31, 1898, which was read, and, by unanimous consent, was ordered printed and placed on file.

"CHICAGO, Jan. 4, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the week ending December 31, 1898, as the same have been reported to me:

Engineering department	78
Maintenance account	8
Clerical department	5
Law department	8
Treasury department	1
Police department	29
Telephone operator	1
Total employes	130

Respectfully submitted,

(Signed) JOSEPH F. HAAS,

Clerk."

COMPLETION OF CONTRACT FOR SUBSTRUCTURE OF ATCHISON, TOPEKA & SANTA FE BRIDGE AT WEST END OF SECTION N.

The Clerk presented and read a report from the Chief Engineer being final certificate in reference to the completion of the contract with Messrs. McArthur Bros. Company and Winston & Co. for the substructure of the A., T. & S. F. Bridge at west end of Section N, which, on motion of Mr. Kelly, seconded by Mr.

Eckhart, was referred to the Committee on Engineering by unanimous consent.

COMPLETION OF CONTRACT FOR SUPERSTRUCTURE OF ATCHISON, TOPEKA & SANTA FE BRIDGE ACROSS DESPLAINES RIVER ON SECTION 8.

The Clerk presented and read a report from the Chief Engineer, being final certificate in reference to the completion of the contract with the Penn Bridge Company for the superstructure for the A., T. & S. F. Bridge across the Desplaines River on Section 8, which, on motion of Mr. Kelly, seconded by Mr. Eckhart, was referred to the Committee on Engineering by unanimous consent.

COMPLETION OF CONTRACT FOR SUBSTRUCTURE OF WILLOW SPRINGS HIGHWAY BRIDGE CROSSING MAIN CHANNEL.

The Clerk presented and read a report from the Chief Engineer, being final certificate with reference to the completion of the contract with Messrs. Sackley & Peterson for the substructure for the Willow Springs Highway Bridge, crossing Main Channel, which, on motion of Mr. Kelly, seconded by Mr. Eckhart, was referred to the Committee on Engineering by unanimous consent.

MONTHLY REPORT FROM TREASURY DEPARTMENT.

The Clerk presented a report from the Treasury Department for the month of December, 1898, which was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT:

Receipts.

Balance on hand at date of last report		$ 121,968 77
From County Treasurer, Sanitary District, Tax Account	$ 386,196 27	
From J. F. Haas, Clerk, General Account	96 70	
From J. F. Haas, Clerk, Account F. W. C. Hayes, Attorney	416 66	
From J. F. Haas, Clerk, General Account	5 05	
From J. F. Haas, Clerk, General Account	5 00	
From J. F. Haas, Clerk, General Account	2 00	
From Chicago National Bank, Interest Account	738 85	
Total cash received for month		$ 387,460 62
		$ 509,429 39

Disbursements.

Clerical Department	$ 65 50	
Treasury Department	44 65	
Engineering Department	783 44	
Law Department	298 73	
General Account	182 00	
Police Department	116 80	
Maintenance Account	29 60	
Tax Warrants Levy, 1896	903 90	
Tax Warrants Levy, 1897	14,707 77	
Interest on Tax Warrants Levy, 1896	32 10	
Interest on Tax Warrants Levy, 1897	471 95	
Total cash disbursed		$ 17,586 44
Balance this date, in banks as per schedule endorsed hereon		491,842 95
		$ 509,429 39

Schedule.

Chicago National Bank	$ 465,904 17
National Bank of Illinois	25,938 78
Total	$ 491,842 95

CHICAGO, Jan. 3, 1899.

(Signed) F. M. BLOUNT, *Treasurer.*
By S. P. BLOUNT, *Asst. Treasurer.*

REPORT TRANSMITTING PROCEEDS OF RENT AND SALE OF CERTAIN DISTRICT PROPERTY.

The Clerk presented and read a report from the Attorney, transmitting checks for the sums of $22.80 and $40.00, in payment for proceeds of rent of certain premises and sale of certain District property, as set forth in the report.

By unanimous consent, the report was ordered received, and the recommendations contained therein concurred in.

The following is

THE REPORT:

"CHICAGO, January 4, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I enclose herewith check for twenty-two and eighty hundredths ($22.80) dollars transmitted to me by J. W. Nadelhoffer, Custodian for Will County, and by me endorsed to the Treasurer of the Sanitary District of Chicago, said sum of twenty-two and eighty-hundredths ($22.80) dollars being the proceeds of rent of certain premises on the Joliet Right of Way, as fully expressed in the agreement accompanying this report.

I also enclose check drawn to my order by Mr. Nadelhoffer, and by me endorsed to the Treasurer of the District, being in payment for the sale of certain machinery and buildings on the right of way, as follows:

From Geo. P. Adams, for sale of Bridewell	$10 00
From Adam Groth, for old machinery	5 00
From Swan Anderson, for Sanford Foundry building	25 00
	$40 00

I would recommend that the above sums be deposited to the credit of the District and the land account thereof.

Respectfully submitted,

CHAS. C. GILBERT,

Attorney."

(Accompanied by agreement and checks.)

REPORT IN REFERENCE TO AGREEMENT WITH THE BELT RAILWAY COMPANY OF CHICAGO AND THE CHICAGO AND WESTERN INDIANA RAILROAD COMPANY.

On behalf of the Committee on Engineering, Mr. Mallette presented, and the Clerk read, a report from that Committee with reference to, and accompanied by, a form of proposed agreement between the Sanitary District of Chicago, the Belt Railway Company of Chicago and the Chicago and Western Indiana Railroad Company, with reference to the various matters connected with the crossing of right of way, the report recommending the adoption of the contract accompanying same.

Mr. Mallette, seconded by Mr. Wenter, moved that the report be adopted and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Carter, Eckhart, Kelly and Wenter—five. Nays—Mr. Mallette—one. Excused and not voting—Mr. Braden—one.

Upon this result the President declared the motion carried.

Mr. Kelly, seconded by Mr. Eckhart, then moved that the President and Clerk of the Sanitary District be authorized and directed to execute a contract with the said railroad companies in the form appended to the report.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Kelly and Wenter—six. Nays Mr. Mallette—one.

Upon this result the President declared the motion carried.

In the same connection, Mr. Mallette presented a communication from Trustee Jones, asking that he be recorded in the affirmative on the adoption of the above report of the Engineering Committee and the contract therewith submitted, which, on motion of Mr. Wenter, seconded by Mr. Eckhart, was ordered printed and placed on file by unanimous consent.

The following is

THE REPORT:

"CHICAGO, January 3, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Your Committee on Engineering, having had under consideration the condemnation suit between the Sanitary District of Chicago and the Western Indiana Railroad Company, begs leave to report that it has had a series of extended conferences with the President and other officials of that road, and finds that the only adjustment which

can be amicably made must be based on the contract herewith submitted, and which is recommended for the approval of your Honorable Body.

Your Committee believes an adjustment on this basis to be an unjust burden upon the Sanitary District, but finds it is the only settlement possible outside of the courts, and the great delay of the court in allowing this condemation suit to come to trial makes it imperative that it be adjusted out of court, if we are to hope to complete the bridge and open the Channel during the current year.

While your Committee believes a contest in the courts would not result in allowing the railroad company more than a three-track bridge, and would result in other material concessions to the District, it is of the opinion that a four per centum capitalization would be exacted from the District under the present financial conditions and rates of interest.

The fruitless efforts of the Attorneys of the District to secure a trial of this case are known to you all, and there no longer remains any doubt as to the absolute necessity of an immediate settlement with this company, in order to avoid serious delay in opening the Channel, but your Committee desires herewith to place on record its belief that in this case there has been a practical denial of justice and a violation of law by the Cook County Circuit Judge, in whose court this case is being tried, and that as a consequence thereof, although the statute provides that condemnation proceedings shall be given precedence, two years have been fruitlessly consumed by our Law Department in attempting to secure a submission of the issues involved to a Cook County jury.

The adoption of the contract herewith submitted is, therefore, recommended, not as a matter of equity between the parties, but as an onerous burden upon the District, made necessary by public demand for an early completion of the work of the Sanitary District.

Respectfully submitted,

(Signed) ALEX. J. JONES,
THOMAS KELLY,
B. A. ECKHART,
Z. R. CARTER,
FRANK WENTER,
WM. BOLDENWECK,
Committee on Engineering."

(Accompanied by form of agreement.)

(*For form of agreement see page 5396.*)

The following is

THE COMMUNICATION FROM TRUSTEE JONES:

"CHICAGO, Jan. 3, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—As other business will compel my absence from the meeting of the Board of Trustees on tomorrow, Wednesday, January 4th, I hereby respectfully request that I be recorded in the affirmative on the adoption of the report of the Engineering Committee, and the contract therewith submitted, adjusting the condemnation suit between the Sanitary District and the Western Indiana R. R. Co. and the Belt Railway Company of Chicago.

Respectfully,

(Signed) ALEX. J. JONES,

ADJOURNMENT.

On motion of Mr. Carter, seconded by Mr. Braden, the Board then adjourned.

Joseph F. Haas

Clerk.

PROCEEDINGS

—OF THE—

BOARD OF TRUSTEES

—OF THE—

SANITARY DISTRICT OF CHICAGO.

JANUARY 7 AND 11, 1899.

OFFICIAL RECORD

Published by authority of the Board of Trustees of the Sanitary District of Chicago.

REGULAR MEETING.

The four hundred and nineteenth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Saturday, January 7, 1899, at 1:30 o'clock P. M.

On roll-call, Messrs. Boldenweck, Eckhart and Kelly—three members, were present. No quorum.

At 2 o'clock P. M., no other members having arrived, the Board then adjourned.

Joseph F. Haas

Clerk.

OFFICIAL RECORD.

Published by authority of the Board of Trustees of the Sanitary District of Chicago.

REGULAR MEETING.

The four hundred and twentieth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Wednesday, January 11, 1899, at 2 o'clock P. M.

On roll-call Messrs. Boldenweck, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—eight members, were present, Mr. Braden arriving subsequently.

President Boldenweck then called the Board to order.

MINUTES.

The minutes of the regular meetings, held December 24, 28 and 31, 1898, and January 4, 1899, were approved as printed, on motion of Mr. Wenter, seconded by Mr. Kelly.

WEEKLY REPORT ON EMPLOYES.

The Clerk presented a report, in accordance with the Rules, showing the number of persons in the employ of the District for the week ending January 7, 1899, which was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, Jan. 11, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the week ending January 7, 1899, as the same have been reported to me:

Engineering department	78
Maintenance account	8
Clerical department	5
Law department	8
Treasury department	1
Police department	29
Telephone operator	1
Total employes	130

Respectfully submitted,

(Signed) JOSEPH F. HAAS,
Clerk."

EXECUTION OF AGREEMENT WITH THE BELT RAILWAY COMPANY OF CHICAGO AND THE CHICAGO AND WESTERN INDIANA RAILROAD COMPANY.

The Clerk presented and read a report transmitting the agreement with the Belt Railway Company of Chicago and the Chicago and Western Indiana Railroad Company, in regard to the various matters connected with the crossing of right of way, duly executed, and recommending that the said agreement be printed and placed on file with the Clerk.

By unanimous consent, the report and accompanying agreement were ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, Jan. 6, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I herewith transmit the agreement dated January 4, 1899, between "The Sanitary District of Chicago," "The Belt Railway Company of Chicago" and "The Chicago & West-Indiana Railroad Company," with reference to the various matters connected with the crossing of right of way of said companies, the same having been duly executed by the said companies and also by your President and Clerk, as authorized by the Board of Trustees at the meeting held January 4, 1899 (page 5392 of the Proceedings), and I therefore recommend that the said agreement be printed in the Proceedings and placed on file with the Clerk.

Respectfully submitted,

(Signed) JOSEPH F. HAAS,
Clerk."

(Accompanied by agreement.)

The following is

THE AGREEMENT:

"THIS AGREEMENT, Made and entered into this 4th day of January, A. D. 1899, between the Sanitary District of Chicago, a corporation under the laws of the State of Illinois, hereinafter called the 'Sanitary District,' party of the first part; The Belt Railway of Chicago, also a corporation under and by virtue of the laws of the State of Illinois, hereinafter called the 'Belt Company,' party of the second part; and the Chicago & Western Indiana Railroad Company, also a corporation under and by virtue of the laws of the State of Illinois, hereinafter called the 'Western Indiana Company,' party of the third part:

WHEREAS, In the prosecution of the work for which the Sanitary District was organized, it has located its Main Channel upon a route which intersects the railroad and right of way upon and across the west half (½) of Section Three (3) in Township Thirty-eight (38) North, Range Thirteen (13) east of the Third Principal Meridian, in Cook County, Illinois, which right of way and railroad are owned by the Western Indiana Company and held under a lease and operated and controlled by the Belt Company; and

WHEREAS, The Sanitary District has instituted, in the Circuit Court of Cook County, in the State of Illinois, condemnation proceedings for the purpose of acquiring a right of way for its Main Channel under and across the said right of way and railroad of the party of the second part; and

WHEREAS, Such condemnation proceedings

are pending and undetermined in said court, and the Sanitary District cannot until the determination thereof enter upon said premises for the purpose of constructing its said Main Channel under and across said right of way, without the consent of said railroad company; and

WHEREAS, The Belt Company and the Western Indiana Company claim that they have been and will be largely damaged by the construction and maintenance of said Main Channel, whereby they will be compelled to operate said railroad across a bridge and will lose the use of so much of their sixty-six (66) foot right of way there as is not provided for by the proposed bridge, and will also suffer great loss by operating said railroad upon the grade at which said railroad will be constructed across such proposed bridge; and,

WHEREAS, The Sanitary District desires to acquire such right of way across said railroad by purchase and secure immediate possession thereof for the purpose of constructing there its proposed Main Channel, and to be released from all claims for damages resulting to the Belt Company and the Western Indiana Company respectively by the construction and maintenance of said Main Channel; and,

WHEREAS, The parties hereto have agreed upon an adjustment of all the matters in difference in relation to such crossing and the pending condemnation proceedings: now, therefore, this agreement witnesseth:

ARTICLE ONE.

(*Fixed Span.*)

That the Sanitary District, in consideration of the performance of the covenants and agreements of the Belt Company and the Western Indiana Company, hereby covenants and agrees as follows:

SECTION 1. The Sanitary District shall, within the time hereinafter fixed, at its own cost and expense, build a four-track rought iron or steel bridge, supported y piers and abutments of first-class bridge asonry, laid in Portland cement mor-ar, to carry the line of railroad of the Belt Company across the Main Drainage hannel of the Sanitary District near Le loyne, in said Cook County, as shown upon Exhibit A hereto attached and made part hereof.

SECTION 2. Said bridge shall be constructed upon the general lines of the plans and specifications as to materials, unit stresses and details of construction and workmanship agreed upon by the Sanitary District in its contract for the construction of bridges with the Atchison, Topeka & Santa Fe Railroad Company in Chicago, and the Chicago, Santa Fe & California Railway Company, except as the same are modified by the provisions of this agreement; which plans, however, shall be first submitted to and approved in writing by the Engineer of the Belt Company, and such approval shall be obtained before any work shall have been begun or contracts let therefor; and such Engineer of the Belt Company shall have free access to all such plans and specifications and to shop inspection reports, and shall have the right to inspect all material and workmanship used in the construction of said bridge structure, piers and abutments, and the work appurtenant thereto, and to reject all that, in his opinion, is not first-class and suitable; and all the inspectors supervising the work provided to be done under this agreement shall be paid by the Sanitary District and appointed subject to the approval of the Engineer of the Belt Company, and shall be discharged at his request.

SECTION 3. Said bridge shall be proportioned and built to carry a dead load consisting of the aggregate weight of the trusses and floor system, the rails and fastenings, cross ties and guard rails; and a live load described as follows: two (2) tracks, each loaded with two one hundred and thirty-nine (139) ton locomotives coupled together, followed by a moving load of forty-two hundred (4,200) pounds per lineal foot for the remaining length of the structure not occupied by the two locomotives; two (2) tracks each loaded with one one-hundred and thirty-nine (139) ton locomotive, followed by a moving load of forty-two hundred (4,200) pounds per lineal foot for the remaining length of said structure not occupied by such locomotive.

SECTION 4. The Sanitary District shall also, at its own cost and expense, make and pay for all changes of grade, line, or alignment of said railroad made necessary by the construction of said bridge and the operation of said railroad over the same, and such changes (the cost of which shall be borne by the Sanitary District) shall include the raising, relaying, relining or reballasting of all tracks and switches affected thereby, all dam-

ages, if any, to abutting and owners by reason of such change of grade and alignment, and everything incidental to the proposed changes; the object and intent of this provision being that the parties of the second and third parts shall be at no expense whatever in consequence of said changes or of any of the work herein provided to be done, and shall severally be indemnified and held harmless against all damage and claims for damage that may be done in pursuance of anything provided by this agreement to be done by the Sanitary District. In case of any such claim being made against the Belt Company or the Western Indiana Company, they shall within ten (10) days give written notice to the Sanitary District, and give it an opportunity to defend or settle such claim, and no such claim shall be settled without the consent of the Sanitary District.

SECTION 5. All work to be done by the Sanitary District under the provisions of this agreement, shall be planned and carried out in such manner as to reduce the delay to all trains on said railroad to a minimum; and where any of the work herein provided for to be done by the Sanitary District is of such a nature that it cannot safely be done by contract or otherwise by the Sanitary District, and especially where there is liability of accident to trains, the Belt Company shall have the right to do such work at the cost and expense of the Sanitary District, and the Sanitary District shall pay to the Belt Company, within ten (10) days after the end of each month during which any work may be done, the amount expended by it on said work during the previous month, and said amount shall include the cost of all damage to persons or property due to the neglect of employees engaged in said work or otherwise; the Sanitary District, however, to have the right to exercise such supervision as will enable the cost of said work so done by the Belt Company to be verified, and said Sanitary District shall be liable for such costs and expenses only when the railway company would be liable.

SECTION 6. The Sanitary District shall, at its own cost and expense, pay for raising the grade of said railroad whenever made necessary by an order of said District which shall result in raising the grades of any other railroads now existing, and such cost shall include all expenses of every name or nature incident thereto and include all changes or additions made necessary to the interlocking systems now provided at any such railroad crossing.

SECTION 7. All changes of line, alignment or grade, and all structures connected therewith, shall be made and constructed as shown on Exhibits A and B hereto attached.

SECTION 8. The Sanitary District shall pay to the Belt Company, within the time hereinafter fixed, as compensation and indemnity for the maintenance, renewal, repair and liability to accident of the bridge structure above provided for and treated as a fixed bridge, a sum of money amounting to twenty-five (25) times the total of the following four (4) items, to-wit:

a. The annual cost of painting said structure, which shall be estimated at three one-hundredths (.03) of one (1) cent per pound computed on the whole weight of metal contained in said bridge structure, not including track material.

b. The annual cost of renewal of cross ties and guard rails; estimated at five ($5.00) dollars per thousand (1,000) feet, board measure, computed on all the lumber in said cross ties and guard rails.

c. The annual cost of general inspection and minor repairs; estimated at twenty (20) cents per lineal foot of track crossing said bridge.

d. The annual depreciation in value and liability to accident; estimated at two (2) per cent of the entire cost of the metal in said structure erected in place, including in such cost the cost of the design and plans for such bridge and of all supervision and inspection employed in the construction thereof.

The amount of the four (4) items above shall be verified by the Chief Engineer of the Sanitary District and the Engineer of the Belt Company; and ninety (90) per cent of the preliminary estimate of such engineers of the total amount above provided for shall be paid by the Sanitary District to the Belt Company as soon as the contract for the construction of said bridge has been let in accordance with the provisions of Sections 2 and 3 (two and three) of this Article, and before the Sanitary District may enter upon any portion of said right of way.

Said Railroad Companies shall be the sole and exclusive owners of said bridge and shall have entire charge of and control over

he same, subject only to the provisions of Article three (3) hereof. But until the payments provided for in this Article shall have been fully made the Sanitary District shall, at its own expense, maintain said bridge structure in good condition.

SECTION 9. The Sanitary District shall, on or before the first day of January, 1900, construct said bridge and appurtenances complete, and make all changes in the grade, alignment and connections of said railroad appurtenant to said bridge, and do and perform all its covenants and agreements in this Article contained and pay the remainder of the sum of money due to the Belt Company upon a final verification of the total amount of the capitalization of the four items of annual expense as provided for in the preceding Section, and shall fully pay all other claims and demands of the Belt Company against the Sanitary District which may arise under the provisions of this Article.

ARTICLE TWO.

(Right of Way and Release of Damages.)

That the Belt Company and the Western Indiana Company, in consideration and upon the condition of the performance of the foregoing covenants and agreements of the Sanitary District, hereby covenant and agree:

SECTION 1. That when the Sanitary District shall have constructed the bridge and made all the changes in said railroad so that such bridge and railroad shall be ready for operation across said four-track bridge, and shall have made all the payments to the Belt Company hereinbefore provided for, and performed each and all of the other covenants and agreements of the Sanitary District in Article one (1) hereof set forth, the Western Indiana Company and the Belt Company will convey to the Sanitary District, by a good and sufficient deed, a right of way for its Main Channel across their right of way and railroad near said Le Moyne, more particularly described as follows:

A strip of land sixty-six (66) feet wide, across the northwest quarter (¼) of Section three (3), Township thirty-eight (38) North, Range thirteen (13) East of the Third Principal Meridian, in Cook County, Illinois, being thirty-three (33) feet wide on each side of a center line beginning at a point in the north line of the said northwest quarter (¼) of said Section three (3), thirteen hundred and forty-four (1,344) feet east of the northwest corner of said quarter (¼) section, measured along its north line, and running thence southerly in a straight line to a point in the south line of the said quarter section thirteen hundred twenty-seven and ninety-two hundredths (1,327.92) feet east of the southwest corner of said northwest quarter of said Section three (3), measured along its south line.

And will release the Sanitary District from all damages and claims for damage which they or either of them have or may have in consequence of the construction and operation of said Main Channel and the erection of said bridge for the crossing of said railroad over such channel, as shown in Exhibit A.

ARTICLE THREE.

(As a Movable Span.)

That the parties hereto mutually covenant and agree with each other as follows:

SECTION 1. If at any time hereafter any State or Federal authority shall require the bridge provided for in Article one (1) to be operated as a draw or swinging bridge, the Sanitary District shall, at its own expense, equip said bridge with such rotating mechanism, and make such alterations in and additions to said bridge and to the substructure thereof, including proper protection for the piers and abutments of said bridge, as shall be necessary to operate it as a draw or swinging bridge; provided that such rotating mechanism and all such equipments of said bridge and alterations in or additions thereto and to the substructure thereof, or any changes therein, shall be constructed according to plans and specifications that shall have been approved in writing by the Engineer of the Belt Company before any such work shall have been commenced or contracts let therefor; and such Engineer shall have the right to inspect any material or workmanship used in such construction, and to reject all that he shall not consider first-class and suitable; and provided further that the Sanitary District shall, at its own expense, and before such draw or swinging bridge shall have been operated as such, furnish, complete and install an interlocking, derailing and signaling system for the protection of trains crossing said bridge; the said interlocking system to be designed, constructed and installed to the entire satisfaction of the Engineer of the Belt Company, and provided further, that before such draw

or swinging bridge shall be operated as such the Sanitary District shall pay to the Belt Company a sum of money in cash equal to twenty-five (25) times the amount of the following five (5) items, in addition to the sum of money provided to be paid by the Sanitary District under the provisions of Article One (1) hereof, namely:

a. For the increased annual depreciation and wearing out of the superstructure of such bridge, and for increased liability to accident thereto on account of the same being used as a swinging bridge, the sum of one-half (½) of one (1) per cent of the total cost of the superstructure of said bridge as described in Paragraph *d* of Section Eight of Article One.

b. For annual depreciation, repair, renewal and liability to accident of the entire rotating machinery, including every item entering into the cost of installing the same complete, the sum of seven and one-half (7½) per cent of the entire cost thereof.

c. For the annual depreciation, renewal and repair of pile and frame pier and abutment protection, and for liability to accident to the same, the sum of twelve and one-half (12½) per cent of the entire cost of said structures.

d. For the annual depreciation, repair and renewal of the interlocking plant, and for liability to accident thereto, the sum of ten (10) per cent of the total cost of such interlocking plant.

e. For the annual compensation for operating said draw span and interlocking plant, including wages of engineers, tower-men, lamp-men and all others employed in connection with operating and maintaining the bridge and interlocking plant connected therewith, also for fuel, oil, waste and all other supplies and materials, etc., the sum of five thousand ($5,000) dollars.

The aggregate of the foregoing five (5) amounts shall be verified by the Chief Engineer of the Sanitary District and the Engineer of the Belt Company before such bridge shall be changed and converted from a fixed span to a draw or movable span, and twenty-five (25) times the amount so determined shall be paid by the Sanitary District to the Belt Company before such bridge shall be operated as a draw or movable structure.

SECTION 2. If, in carrying out the work herein proposed, the Sanitary District shall desire the Belt Company to abandon its present railroad tracks before the said new railroad on the said proposed four-track bridge shall have been completed, as hereinbefore provided, then the Sanitary District shall, at its own expense, provide and construct temporary tracks and bridging for the safe and convenient use of the trains of the Belt Company, including proper crossings with the Atchison, Topeka & Santa Fe Railroad and the Chicago & Alton Railroad and proper connections therewith. But the Belt Company shall not be required to abandon its present tracks or any part thereof, or use the said temporary tracks and the bridging and connections until the Engineer of the Belt Company shall consider such temporary tracks and the bridging and all things thereto appertaining safe and suitable for such use.

SECTION 3. If, after the Belt Company shall have abandoned the use of its present tracks and road bed at their intersection with said Main Channel, in pursuance of the plan of action hereinbefore proposed, the Sanitary District shall from any cause fail to do what it has hereinbefore agreed to do, and shall neglect or abandon such work, and shall continue so to do thirty (30) days from the date of a written notice thereof from the Belt Company, then and in such case the Belt Company shall have the right at its option to take full charge of any and all such work and complete it according to the plans herein outlined, or according to other and different plans; and the Sanitary District covenants and agrees to pay to the Belt Company the full cost and expense of such work so done by it on presentation of proper bills therefor, provided that the Sanitary District shall not pay more for such completed work, if done upon a different plan, than the same would have cost if completed according to the plans herein outlined.

SECTION 4. If the Sanitary District shall at any time hereafter be required by any law of this State or the United States to widen its Main Channel at its intersection with said railroad, it may do so; provided, that the Sanitary District shall, at the same time, at its own expense, extend said railroad bridge over its said Main Channel and make all other changes and alterations in the same and in the substructure thereof and in said rotating mechanism and said interlocking system that shall be required by the Belt Company, and all such changes and alterations shall be made according to plans and

specifications that have been approved in writing by the engineer of the Belt Company before any such work is begun or contracts let therefor; and the Sanitary District shall further pay to the Belt Company a sum of money sufficient to fully cover the increased cost of the maintenance, renewal, repair, depreciation and operation of said bridge and said rotating mechanism, interlocking system, and all other additions and appliances thereof, which sum of money shall be determined upon the basis hereinabove provided in Section eight of Article one, and in Section one of Article three.

SECTION 5. In case either party hereto shall deem it necessary to effect the purposes of this agreement, the suit now pending, as aforesaid, shall be brought on to hearing and trial, and such other suit or suits shall be brought and such proceedings shall be had therein as may be necessary to carry out this contract; and the final order, judgment or decree entered in any such suit or suits shall in every respect be in conformity to this agreement.

SECTION 6. This agreement shall be binding upon and inure to the respective successors and assigns of the parties hereto.

In witness whereof, the parties hereto have caused these presents to be signed by their respective presidents, and their corporate seals to be hereunto affixed and duly attested, the day and year first above written.

(Signed.) *Sanitary District of Chicago,*
By WM. BOLDENWECK,
Its President.
Attest.
JOSEPH F. HAAS, [SEAL.]
Its Clerk.

The Belt Railway Company of Chicago,
By B. THOMAS,
Its President.
Attest:
M. J. CLARK, [SEAL.]
Its Secretary.

Chicago & Western Indiana Railroad Co.,
By B. THOMAS,
Its President.
Attest:
M. J. CLARK, [SEAL.]
Its Secretary.

MONTHLY REPORT FROM CLERICAL DEPARTMENT.

The Clerk presented a report from the Clerical Department for the month of December, 1898, which was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT:

CHICAGO, Jan. 2, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I herewith submit the report of the Clerical Department for the month of December, 1898:

The total expenditure of the District for the month was $988,487.25, of which amount the sum of $664,995.08 was paid in regular warrants, $257,376.45 in 1898 Tax Levy Warrants and $16,115.72 by the Treasurer of the District for which no warrant was required.

Of the amount paid by the Treasurer the sum of $903.90 was for 1896 Tax Warrants redeemed, $14,707.77 for 1897 Tax Warrants redeemed and $504.05 for interest on warrants redeemed.

The total amount expended on account of and charged to the Clerical Department during the month of December was $3,359.26, of which amount the sum of $3,300.01 was for salaries and the sum of $59.25 for general office expenses.

There are no outstanding liabilities against the Clerical Department and the expenditure for the present month will be about $1,000.00.

The total amount expended for account of, and charged to, the General Account during the month of December was $4,420.60, divided as follows:

Rent for December	$ 483 33
Printing	186 98
Telephone service	1,162 46
Salaries	2,453 33
General expenses	134 50
Total	$ 4,420 60

The expenditure for the present month for the General Account will be about $3,000.00.

Of the total amount of 1896 Tax Levy Warrants issued, there is now outstanding the sum of $12,709.35; of the 1897 Tax Levy Warrants issued, there is now outstanding the sum of $16,542.78 and of the 1898 Tax Levy Warrants issued to date, the total amount is now outstanding and amounts to the sum of $1,535,086.47.

The following is a tabulated statement of total expenditures for the month of December, 1898.

ACCOUNT.	Regular Warrants.	1898 Tax Levy Warrants.	Paid by Treasurer.	Total for Month.
Engineering Department	$ 593 95	$17,633 40	.....	$ 18,227 35
Construction	.....	176,256 51	.....	176,256 51
Clerical Department	59 25	2,300 01	.....	2,359 26
Law Department	711 10	13,746 57	.....	14,457 67
Land	45 50	35,050 00	.....	35,095 50
Treasury Department	.....	333 33	.....	333 33
General	134 50	4,286 10	.....	4,420 60
Police Department	102 84	4,961 44	.....	5,064 28
Maintenance	47 94	1,809 09	.....	1,857 03
Bond	430,000 00	.....	.....	430,000 00
Interest and Premium	233,300 00	.....	.....	233,300 00
Emergency Fund, Chas. C. Gilbert, Attorney	.....	1,000 00	.....	1,000 00
1896 Tax Warrants redeemed	.....	.....	$ 903 90	903 90
1897 Tax Warrants redeemed	.....	.....	14,707 77	14,707 77
Interest on Tax Warrants redeemed	.....	.....	504 05	504 05
Totals	$664,995 08	$257,876 45	$ 16,115 72	$938,487 25

Respectfully submitted,

(Signed) JOS. F. HAAS, *Clerk.*"

ANNUAL REPORT FROM POLICE DEPARTMENT.

The Clerk presented a report from the Police Department for the year ending December 31, 1898, which, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, Jan. 7, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Complying with the rules of your Honorable Body, I have the honor to submit the Annual Report of the Police Department for the year ending December 31, 1898.

At the commencement of the year 1898 we were rendering regular police service at five stations along the Canal, situated as follows: Forty eighth street, Summit, Willow Springs, Sag Bridge and Lockport. We had two policemen and a pumpman stationed at Western Avenue Bridge, as the scow under the bridge is in a leaky condition, requiring regular pumping days, nights and Sundays.

On May 17, 1898, we abandoned the stations at Willow Springs and Sag Bridge and discontinued the service thereat. On the same date, we established a new police station at Joliet in a building owned by the Sanitary District, northwest corner of Desplaines and Jefferson streets, and assigned the men from the abandoned stations to regular police duty on Sections 17 and 18, and in the City of Joliet. The cost of repairs necessary to make this building tenantable was but $105.00, as the police did all the carpenter work and most of the painting. The men at this station are kept busy preventing teamsters and storekeepers from dumping garbage and other refuse on the Sanitary District property and preventing others from digging and hauling away the black earth for filling purposes, while the contractors need more clay than they can get on this section for the purpose of breasting, topping and completing the levee at this point.

We keep in close touch with everything that happens along the Canal that properly comes under this department. We get transportation on both the railroads that parallel the Canal. We also have a team at Lockport and one at Summit, so if anything transpires within the twenty miles between the Summit and Lockport stations requiring our attention, with the assistance of the railroads

and conveyances, we can be on the ground in less than an hour. Our relations with the authorities along the Canal are harmonious, and our police force works in conjunction with them on every occasion.

As the work is being rapidly completed, and the beginning of the end is in sight, the workmen are not so numerous and are decidedly less hostile. Prosperity is abroad and they are out for a "chunk" of it, as they refuse to work for less than $1.75 per day.

We had five strikes this year. On two occasions we ordered the strikers who refused to go to work from the District lands, which separated them a quarter of a mile from their jobs, where they could not harrass the contractors, and they immediately signified their desire to go back to work again at the same wages.

There was but one murder on the works this year, i. e., on Section 14, where William Jones shot and killed James Johnson July 28, 1898, both parties being negroes. We arrested Jones and the Coroner's Jury held him to the Grand Jury without bail, which latter body considered it justifiable homicide and discharged him. (I doubt very much whether this body would be as charitable to a Drainage policeman, as it indicted two of our men for doing their duty in subserving the interest of the District.)

We arrested Buffalo Miller and John Meyers and on July 27th had them convicted in the Criminal Court of Cook County, where they were given an indeterminate term in the Penitentiary for cow stealing. When this had been accomplished we thought cow stealing was at an end in the Summit District, but complaints continued to come in of more cows being stolen. December 4th we arrested H. C. Hale after dark, two miles south of Summit, with a stolen cow, just in time to save him from being lynched by an angry crowd of farmers. He confessed he stole fifteen cows from nine different farmers. His mode of operation was to steal one cow at a time and walk her by an out of the way road, so as to get her to Joliet in the morning, where he would sell her to certain prominent men of that city. He is held by the Cook County Grand Jury in $1,000 bonds, and the farmers are going to get the price of their cows back.

We sent Mike Shultz to the county jail of Cook County, under bonds of $500, for stealing copper wire of the District telephones. He was convicted and given nine months in the Bridewell. We had two men held to the Criminal Court at Summit in bonds of $800 and $500 respectively, for robbing a boarding house of money and clothes belonging to boarders.

We arrested six "blind pig" keepers in Cook County, four of whom were fined $50 each and costs. Two had no government license, and we had them held to the United States Grand Jury in $500 each. We arrested and had convicted two "blind pig" keepers in Will County, who were fined $30 each and costs. Also, at the request of Mayor Baken, of Lockport, we raided a house of ill-fame in that town, six inmates of which were fined $25 each and costs, after two trials.

We have twenty-eight policemen and one pumpman on our force. Among these there was considerable sickness during the summer and autumn months, caused by malarial fever. There were no deaths among the members of the force, and aside from the malaria, the general health and condition of the men were fairly good.

During the year there were less overt acts of lawlessness committed than in preceding years, owing to the completion of a large number of the Sections of the Canal, but there still remains a number of worthless vagrants and petit larceny thieves, who hang around and steal stock and poultry from the farmers and iron and brass from the machinery belonging to the contractors on the completed sections, of which there is at least $75,000 worth lying around.

I have been frequently asked by a number of people, residents and non-residents, some of whom are editors and other interested parties, as to the number of men killed directly or indirectly in the work of excavating and constructing the great Canal. Most of these people are inclined to think that the casualties have reached four figures. As the Canal is now almost completed, I take this opportunity of going into the matter and submitting the following facts.

Going back eleven months previous to the organization of the Drainage Police Force, to September 3, 1892, when the Hon. Frank Wenter, then President of the Board, dug the first shovel of earth and rock on Section 10, on the line of Cook and Will Counties, to December 31, 1898, I find the total number of violent

deaths from all causes along the Canal is 281, classified as follows:

Killed on the works	103
Killed by railroads	56
Murdered	40
Drowned	45
Found dead	37
Total	281

Of the 34 murders committed since the organization of the Drainage Police Force, 33 men have been apprehended, charged with murder, and one Gaspara Caruso, who murdered S. Latino at Sag Bridge, August 22, 1895, is still at large

WORK OF DEPARTMENT FOR 1898.

The following is a summary of the work done by this department during the year 1898:

Arrests	267
Fines imposed	$1,123 50
To jail for nonpayment of fines	2
To Bridewell	6
Held to Grand Jury	12
Dead cared for	13
To hospitals	11
Insane persons taken charge of	1
Lost children returned home	2
Runaway girls found	1
Injured or sick animals shot	1

ARRESTS FOR 1898.

Abductions	2
Assaults	21
Assaults with deadly weapons	1
Assault and battery	5
Bastardy	1
Carrying concealed weapons	1
Cow stealing	3
Disorderly conduct	157
Disorderly on railroad trains	5
Gambling	7
Harboring girl under age in house of ill-fame	4
Inmates of house of ill-fame	3
Interfering with an officer	1
Keeping house of ill-fame	4
Larceny	14
Larceny from railroad	1
Making threats	4
Malicious mischief	1
Murder	1
Nuisance	1
Obtaining money by false pretenses	1
Rape	1
Receiving stolen property	2
Selling liquor without license	7
Shooting in village limits	2
Trespassing	4
Vagrancy	2
Wife beating	1
Miscellaneous offenses	10

You will notice by the number of "disorderly conduct" cases, that the Justices of the Peace along the Canal, as well as some of their fellows in Chicago, are out for the coin, as, in cases of persons charged with any crime, except felony, they are inclined to change the charge to disorderly conduct, provided, however, that the defendant or his friends can produce sufficient money to pay a fine and costs.

Respectfully submitted,

(Signed) EDWARD J. COEN,

Marshal.

MONTHLY REPORT FROM LAW DEPARTMENT.

The Clerk presented a report from the Law Department for the month of December, 1898, which, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT.

"CHICAGO, January 11, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I herewith submit the report of the Law Department for the month of December, 1898.

The following is the itemized statement of the expenditures of the Department for the month of December, 1898:

SALARIES.

Attorneys	$1,366 67	
Office force	400 00	
		$ 1,766 67

GENERAL EXPENSES.

Court costs	$ 151 87	
Right of way (salaries)	125 00	
Expense account	1,389 78	
Legal services (salaries)	416 66	
Legal services (extra)	7,931 66	
Books, printing and stationery	614 70	
Furniture (bookcase)	18 00	
		$10,647 67

LAND ACCOUNT.

Will County—		
By purchase.....	$ 3,050 00	
By condemnation	32,000 00	
Abstract account.	45 50	
		$35,095 50
Total for December.....		$47,509 84

Of the above expenditures on account of condemnation, twenty thousand ($20,000) dollars was paid the Board of Canal Commissioners under the terms of the amended decree entered in the Circuit Court of Will county on December 20, in the suit of the Canal Commissioners versus the Sanitary District of Chicago, and the sum of twelve thousand ($12,000) dollars was paid the Economy Light and Power Company for damages by loss of water power pending the construction of the Channel under the terms of same decree. The lots acquired are situated in North Joliet. Agreement has been reached for the acquisition of further right-of way, involving the expenditure of one thousand ($1,000) dollars.

A petition is being prepared for the condemnation of all the islands in the Desplaines river in Sections sixteen (16) and twenty-one (21), Township thirty-five (35) north, Range ten (10), north of Hickory creek in the City of Joliet.

The following case was begun during the month:

Sanitary District of Chicago versus Alanson Sweet et al., No. 17,432, in the Circuit Court of Will County. This is a condemnation suit to acquire all the property between the tow path of the Illinois and Michigan Canal and the west bank of the Desplaines river south of Morgan street in Joliet, comprising some one hundred and twenty six (126) lots and parts of lots. The hearing of this case is set for the 13th of February.

The following proceedings were had in the cases pending in the several courts:

The case of the Sanitary District of Chicago versus the Chicago & Alton Railroad Company, et al., was dismissed. The property involved having been previously acquired.

In the case of the Canal Commissioners versus the Sanitary District of Chicago, the decree of the County Court of Will county has been amended and the appeal to the Supreme Court has been dismissed in accordance with the resolution of your honorable body of December 14, 1898.

In the case of John King, for the use of Bridget Mitchell, executrix, etc., versus the Sanitary District of Chicago, Continental National Bank, Illinois Trust and Savings Bank and Lemont State Bank, a motion was made to dismiss as to the Sanitary District and sustained by Judge Holdom, and judgment for costs entered in favor of the District and satisfied.

In the case of George P. Lee versus the Sanitary District of Chicago and Fred M. Blount, Treasurer of said Sanitary District, Gen. No. 193,077, in the Superior Court of Cook county, a finding was entered that the cause was not proved and the bill was dismissed for want of equity.

The case of Bridget McGuirl versus the Sanitary District of Chicago, Gen. No. 161,695, in the Circuit Court of Cook county, after a trial lasting about a week a verdict was rendered in favor of the plaintiff, for seventeen thousand five hundred ($17,500) dollars. Motion for a new trial was overruled and judgment entered on the verdict. An appeal has been prayed to the Appellate Court by the defendant and allowed.

The trial of the cases of Henry J. Burke versus the Sanitary District of Chicago and A. Hero versus the Sanitary District of Chicago, and the routine work will occupy the Department, together with other pending matters, for the ensuing month.

Respectfully submitted,

(Signed) CHARLES C. GILBERT,

Attorney."

REPORT IN REFERENCE TO RELEASE OF JUDGMENT AGAINST FRANCES LIVINGSTON.

Mr. Mallette, Chairman, presented, and the Clerk read, a report from the Committee on Judiciary, in reference to the release of a certain judgment on behalf of the Sanitary District, for the sum of $156.67, against Frances Livingston, the report being accompanied by form of proposed release, and other papers in reference thereto, and recommending that the President and Clerk be directed to execute a release of said judgment, as provided for in the form attached to the report.

Mr. Mallette, seconded by Mr. Kelly, moved that the report be adopted and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—

Messrs. Boldenweck, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—eight. Nays—none.

Upon this result, the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, January 11, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Your Committee on Judiciary has had under consideration the matter of the release of the judgment on behalf of the Sanitary District for the amount of one hundred fifty-six and sixty seven hundredths ($156.67) dollars against Frances Livingston. After careful consideration of the same we respectfully recommend that the President and Clerk be directed to execute a release of said judgment as provided for in the form hereto attached.

Respectfully submitted,

(Signed) J. P. MALLETTE,
Chairman.

B. A. ECKHART,

THOMAS KELLY,

Committee on Judiciary."

(Three enclosures).

REPORT IN REFERENCE TO COMPLETION OF CONTRACTS FOR SUBSTRUCTURE OF A., T. & S. F. BRIDGE AT WEST END OF SECTION N, AND SUPERSTRUCTURE OF A., T. & S. F. BRIDGE ACROSS DESPLAINES RIVER ON SECTION 8.

Mr. Smyth, Chairman, presented, and the Clerk read, a report from the Committee on Engineering, in reference to, and accompanied by, the final certificates of the Chief Engineer as to the completion of the contract with McArthur Bros. Co. and Winston & Co., for the substructure of the A., T. & S. F. Bridge at the west end of Section N, and the contract with the Penn Bridge Co. for the superstructure of the A., T. & S. F. Bridge across Desplaines River on Section 8 presented and referrred to that Committee at the meeting held January 4, 1899 (pages 5390-91 of the Proceedings), the report recommending that the President and Clerk of the District be authorized and directed to make final payment to the said McArthur Bros. Co. and Winston & Co. in the sum of $3,544.62, and to the said Penn Bridge Co. in the sum of $10,440.06, all under conditions and stipulations as set forth in the report.

Mr. Smyth, seconded by Mr. Eckhart, moved that the report be adopted and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Kelly, Mallette, Smyth and Wenter—eight. Nays—none. Excused and not voting—Mr. Jones—one.

Upon this result, the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, January 9, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN — The Committee on Engineering, to whom was referred (page 5391 of the proceedings) the final certificates of the Chief Engineer of the District, in reference to the contract with McArthur Brothers Company and Winston & Company, dated September 14, 1897, for excavating foundation, timber work, piling and masonry for the Atchison, Topeka & Santa Fe Railway bridge substructure on Section N of the Main Channel, and also with reference to the contract with the Penn Bridge Company, dated May 31, 1898, for the superstructure of the bridge across the Desplaines River Diversion, near Lemont, on Contract Section 8, for the use of the Atchison, Topeka & Santa Fe Railway, herewith desires to report that the Committee has examined said certificates, respectively, and fully considered the subject-matter of the completion of the work done under the said contracts, respectively, and recommends as follows:

That the President and Clerk of the District be authorized and directed to make final payment to said McArthur Brothers Company and Winston & Company in the sum of thirty-five hundred forty-four and sixty-two hundredths ($3,544.62) dollars, the sum found to be due said contractors in the aforesaid final certificate hereto attached, and also to make final payment to said Penn Bridge Company in the sum of ten thousand four hundred forty and six hundredths ($10,440.06) dollars, the sum found to be due said Company in the aforesaid final certificate hereto attached, upon the execution of a receipt in favor of the District made by said contractors, respectively, in full and releasing the

District from any and all claims and demands of every kind and nature whatsoever on said contract.

Respectfully submitted,

(Signed) THOMAS A. SMYTH,
Chairman.

J. P. MALLETTE,
THOMAS KELLY,
Z. R. CARTER,
B. A. ECKHART,
FRANK WENTER,
WM. BOLDENWECK,
Committee on Engineering."

(Two enclosures.)

The following are

THE FINAL CERTIFICATES OF THE CHIEF ENGINEER.

"CHICAGO, Jan. 3, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I hereby certify that McArthur Bros. Company and Winston & Co. have completed all of the work covered by their contract dated Sept. 14th, 1897, for excavating foundations, timber work, piling and masonry for the A., T. & S. F. Ry. Bridge substructure on Section "N" of the Main Channel, together with an extra item for work loading, unloading and transferring surplus piles and oak timber from the site of the C. T. T. R. R. Co's. Bridge on Section "E" to the site of the above mentioned Santa Fe Bridge. The work is done to the full satisfaction of the Chief Engineer and in accordance with the terms of said contract with this District.

This certificate is given subject to any unaccrued or unmatured obligations imposed by the contract.

The volume and value of the work done is as follows:

Excavation, 5,676 cu. yds. at 36c.....	$ 2,043 36
Timber in foundation, 9.408 ft. B. M. at $22.00	206 98
Piles delivered, 5,030 lin. ft. at 14c.....	704 20
Piles driven, 4,544 lin. ft. at 6½c.....	295 36
ortland Cement Concrete, 1,331.43 cu. yds. at $5 00	6,657 15
asonry, 1,157.93 cu. yds. at $9.40.....	10,884 54
xtra labor transferring piles, as per voucher No. 6.....	239 26
Total amount earned.....	$21,030 85
Total amount paid.....	17,486 23
Total amount due and unpaid.....	$ 3,544 62

Respectfully submitted,

ISHAM RANDOLPH,
Chief Engineer."

"CHICAGO, Jan. 4, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I hereby certify that the Penn Bridge Company has completed all of the work covered by its contract dated May 31, 1898, for the superstructure of the bridge across the Desplaines River Diversion near Lemont and on Contract Section 8 for the use of the Atchison, Topeka and Santa Fe Railway, to the full satisfaction of the Chief Engineer and in accordance with the terms of the said contract with this District, except that the painting has not been done, the weather being such that I deem it best to delay painting until spring. The materials for this painting have been delivered and stored in the Santa Fe warehouse, and I reserve $350 to cover the labor of painting.

There is also an extra bill not covered by the voucher accompanying this certificate, amounting to $378.35, which must be paid by this District or the Santa Fe Railway Company, it being a case of divided responsibility.

This certificate is given subject to any unaccrued or unmatured obligation imposed by the contract.

The following is a statement covering this contract:

Contract price for superstructure complete		$26,890 00
Extra material, 1,361 pounds soft steel at $.0215.....		29 26
Extra work punching holes in stiffeners of girders.....		4 80
Total.....		$26,924 06
Less amount reserved until structure is painted.....	$ 350	
Less amount paid on previous estimate.....	16,134	
		$16,484 00
Amount due and unpaid.....		$10,440 06

Respectfully submitted,

ISHAM RANDOLPH,
Chief Engineer."

REPORT IN REFERENCE TO EXTENSION OF TIME AS TO SUPPLEMENTAL AGREEMENT WITH UNION STOCK YARDS AND TRANSIT CO. FOR MOVABLE BRIDGE.

Mr. Smyth, Chairman, presented, and the Clerk read, a report from the Committee on Engineering, transmitting a

form of proposed supplemental agreement to the supplemental agreement of date of April 17, 1897, with the Union Stock Yard and Transit Co. for movable bridge, the report recommending that the form of agreement attached to the report be executed in duplicate by the President and Clerk of the District, when the same shall have been executed and returned to the District by the Chicago Junction Railway Co., successors to the Union Stock Yard and Transit Co. of Chicago.

Mr. Smyth, seconded by Mr. Carter, moved that the report be adopted, and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—nine. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, January 9, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—The Committee on Engineering desires herewith to advise your Honorable Body that the Chief Engineer has handed to the Committee a communication addressed to him from the Chicago Junction Railway Company as to the subject of attaching to the contract, between the Union Stock Yard and Transit Company and the Sanitary District a "rider" extending the time for constructing a movable bridge, provided for in said contract, for one (1) year from the date fixed in the Supplemental Contract, or until November 14, 1899. The Chicago Junction Railway Company is the successor to the Union Stock Yard and Transit Company of Chicago and takes the position under the contract between said latter company and the District that company formerly held.

The Committee deems it advisable and necessary that the extension of time suggested in said communication be agreed to by the District.

The Committee, therefore, recommends that the form of agreement hereto attached be executed in duplicate by the President and Clerk of the District when the same shall have been executed and returned to the District by the said Chicago Junction Railway Company. Also attached hereto is a communication from said Company to the Chief Engineer, as aforesaid.

Respectfully submitted,

THOMAS A. SMYTH,
Chairman.

J. P. MALLETTE,
B. A. ECKHART,
THOMAS KELLY,
Z. R. CARTER,
FRANK WENTER,
WM. BOLDENWECK.
Committee on Engineering."

(Two enclosures.)

APPROVAL OF BOND ON CONTRACT FOR "SUBSTRUCTURE, SUPERSTRUCTURE, AUXILIARY WORK AND MATERIALS FOR CHANGE OF THE VAN BUREN STREET APPROACH SPAN ACROSS BY-PASS ALONG CHICAGO RIVER, IN THE CITY OF CHICAGO."

Mr. Carter, Chairman, presented, and the Clerk read, a report from the Committee on Finance, in reference to the approval of the bond of Chicago Bridge and Iron Co. on the contract for the construction of the "substructure, superstructure, auxiliary work and materials for change of the Van Buren Street approach span across By pass along the Chicago River, in the City of Chicago," the report being accompanied by the said contract and bond in duplicate, and recommending that the bond as executed and attached to the contract aforesaid be approved, and that the same be filed with the Clerk of the District, and also recommending that the checks of the Chicago Bridge and Iron Co. and the Lydon & Drews Co. be returned to said companies by the Clerk.

Mr. Carter, seconded by Mr. Braden, moved that the report be adopted and the recommendations contained therein concurred in.

On roll call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—nine. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, January 9, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Your Committee on Fi-

nance, to which was referred at the meeting of the Board held December 10, 1898, (page 5311 of the Proceedings) for acceptance and approval, a bond to be executed by the Chicago Bridge and Iron Company to secure the faithful performance of the work specified in the contract executed by said company with the District for the construction of the substructure, superstructure and auxiliary work for the change in the Van Buren street approach span across the By-pass along the Chicago River, desires herewith to report that the Committee has carefully examined said bond, together with the surety thereon, and advises that the same is satisfactory and acceptable to the Committee.

That said bond is conditioned in the penal sum of five thousand ($5,000.00) dollars, and that the City Trust Safe Deposit and Surety Company of Philadelphia is surety thereon.

Your Committee, therefore, recommends that the bond executed by said company and attached to the contract aforesaid be approved and that the same be turned over to the Clerk of the District for filing.

The Committee also recommends that the checks of the Chicago Bridge and Iron Company and the Lydon & Drews Company, which have been held by order of your Honorable Body, be returned to said companies by the Clerk of the District.

Respectfully submitted,

(Signed) Z. R. CARTER,
Chairman.

B. A. ECKHART,
FRANK WENTER,
Committee on Finance."

The following is

THE CONTRACT:

"*Sanitary District of Chicago:*

CONTRACT AND SPECIFICATIONS FOR THE SUBSTRUCTURE, SUPERSTRUCTURE AND AUXILIARY WORK FOR THE CHANGE IN THE VAN BUREN STREET APPROACH SPAN ACROSS THE BY-PASS ALONG CHICAGO RIVER IN THE CITY OF CHICAGO, ILLINOIS.

THIS AGREEMENT, Made and entered into this 31st day of December, A. D. 1898, by and between the Sanitary District of Chicago, of the first part, and Chicago Bridge and Iron Company, a corporation organized and existing under and by virtue of the laws of the State of Illinois, of the City of Chicago in the State of Illinois, of the second part.

A—

WITNESSETH, That the said party of the second part has covenanted, contracted and agreed, and by these presents does covenant, contract and agree with the said party of the first part, for the consideration of the payments to be made as provided for herein, to the said party of the second part by the said party of the first part, and under a penalty expressed in a bond bearing even date herewith, at its own proper cost and expense to do all the work, and to furnish all material, tools, labor and all appliances and appurtenances called for by this agreement, in the manner and under the conditions hereinafter stipulated, that are necessary to the complete doing of the work known and distinguished by the specifications herein contained, and the plans accompanying them, as the construction of the substructure and superstructure for the change in the Van Buren street approach span across the By-Pass along the Chicago River.

B—

It is further covenanted, contracted and agreed that the work shall be executed under the direction and supervision of the Chief Engineer of the Sanitary District of Chicago, and his properly authorized agents, by whose measurements and calculations the quantities and amounts of the several kinds of work performed under this contract shall be determined, and on whose inspection all work shall be accepted or condemned. The said Chief Engineer and his properly authorized agents shall have full power to reject or condemn all materials furnished or work performed under this contract which do not fully conform to its spirit and to the terms and conditions herein expressed; and the Chief Engineer shall decide every question which may arise between the parties hereto relative to the execution thereof, and his decision shall be final and binding upon both parties.

C—

Wherever the words "Sanitary District" are used in this contract they shall be understood to mean the Sanitary District of Chicago, as represented by the Board of Trustees

of the Sanitary District or their duly authorized and accredited agents.

Wherever the words "Chief Engineer" or "Engineer" are used herein they shall be understood to mean the Chief Engineer of the Sanitary District of Chicago, or his properly authorized agents, limited by the particular duties intrusted to them.

Wherever the word "contractor" is used herein it shall be understood to mean the person or persons, or co-partnership or corporation entering into the contract as party of the second part.

The following ordinance, passed by the Board of Trustees of the Sanitary District of Chicago, June 23, 1897, is hereby made a part of this contract, and the party of the second part agrees to comply with its provisions, and in case of violation thereof to be subject to the penalties therein authorized to be imposed:

"*Be it Ordained by the Board of Trustees of the Sanitary District of Chicago:*

"SECTION 1. That in the preparation of all future specifications for contracts for the construction of the Main Channel and auxiliary works, the Engineering Department shall provide that such contracts shall be executed in conformance with the law constituting eight (8) hours a legal day's work in all contracts under the Sanitary District of Chicago, and that, in the employment of labor, contractors shall be required and specifically agree to give preference to union labor.

"SECTION 2. That all contracts hereafter executed for the works of the Sanitary District of Chicago shall contain provisions constituting eight (8) hours a legal day's work, and forbidding the employment of any employe or employes for a longer period than eight (8) hours in any twenty-four (24) hours, and that said contract shall vest specific authority in the Police Department of the Sanitary District of Chicago to exercise supervision for the enforcement of this provision, and shall provide that the Board of Trustees of the Sanitary District of Chicago shall be empowered in all cases of violation of said eight (8) hour law, to deduct and retain from any money accruing to said contractors a sum as liquidate damages at the rate of five dollars ($5.00) per hour for each employe who shall be required to work in excess of eight (8) hours per day by any contractor on said Canal."

SANITARY DISTRICT OF CHICAGO.

Specifications for Change in Van Buren Street Approach:

GENERAL.

The work hereinafter specified shall consist in furnishing, delivering and building in place all temporary work required, the abutment, the retaining walls and the new superstructure, as well as all necessary work on the old structure, as shown and indicated on plans.

The contractor shall conduct his operations in such a manner as to insure the safety of the public at all times.

The contractor will at no time be allowed to interfere with the traffic across the bridge. If deemed necessary, the contractor shall be allowed to stop street-car traffic across the bridge, on one track at a time.

The necessary switches on either side of the bridge shall be furnished and put in place at the expense of the contractor.

The contractor shall arrange his work to conform with all the ordinances in force in the City of Chicago.

SPECIFICATIONS FOR SUBSTRUCTURE.

The accompanying drawings form part of these specifications. The figured dimensions on the drawings are to be taken whenever they do not agree with the dimensions obtained by scaling from such drawings.

QUALITY OF MATERIAL.

Stone.

1. The stone used shall be Bedford stone or an equally good stone, the quality subject to the approval of the Chief Engineer. It shall be sound and durable, free from drys, shakes or flaws, and of a character that will withstand the action of the weather. All stone must be quarried without the excessive use of explosives, and shall be taken out whenever practicable by the use of plug and feather. It shall be quarried in time to season against frost before being used.

Cement.

2. The best Portland cements shall be used on this work, brand and quality to be subject to the approval of the Chief Engineer. The weight per cubic foot of said cement shall be not less than one hundred (100) pounds. The development of tensile strength for said cement shall be not

less than four hundred (400) pounds per square inch, after being exposed one (1) day in air and six (6) days in water. All lumpy, dirty or damaged cement shall be rejected; also damaged or short weight packages.

Sand.

3. The sand used shall be coarse, clean and sharp, free from all clay, loam or gravel, and shall be well screened and of a quality approved by the Chief Engineer.

Mortar.

4. When Portland cement mortar is used for beds and joints, it shall be mixed in proportions of one (1) part of cement to three (3) parts of sand. When mortar is used for grout, it shall be mixed one (1) part cement and two (2) parts sand. When it is used for pointing, one (1) part cement and one (1) part sand.

Timber.

5. Timber used in foundations shall be white oak, sound, straight and free from wind shakes.

Sheet Piling.

6. Sheet piling and bracing may be of any timber suitable for the purpose and shall be of such dimensions and placed as directed by the Engineer.

CLASS OF WORK.

Excavation.

7. All foundations shall be prepared to receive the masonry by the contractor, who shall make excavations to such a depth and width as directed by the Engineer. The contractor shall also, where necessary, supply and operate, free of cost, all pumps in order to keep the foundation excavation dry. The contractor shall provide, drive, frame and place all sheet piling or other timber work necessary to the successful excavation and protection of the foundation excavation, and shall maintain the same until the masonry shall be built. All material excavated from the foundations shall be removed and placed in embankments or spoil banks as may be directed by the Engineer within a limit of five hundred (500) feet from the site of the excavation. The contractor shall make any excavation under the bridge as directed by the Engineer at the same price bid for foundation excavation.

8. All refilling ordered by the Engineer shall be done without extra cost to the Sanitary District.

Foundation Timber.

9. Payment for timber in foundation to be made per one thousand (1,000) feet B. M. in the completed work, as called for by the bills of material given by the Engineer, which bills shall cover the waste ordinarily incident to framing.

Portland Cement Concrete.

10. Portland cement concrete shall be made in proportions as follows: One (1) part Portland cement, three (3) parts of sand and five (5) parts of broken stone, all as per specifications. The cement and sand shall be thoroughly mixed before mixing with the stone, after which all three constituents shall be thoroughly incorporated to the satisfaction of the Engineer, and the mass sprinkled with clean water until it quakes under ramming. The concrete shall be placed in the forms in layers of six (6) inches and compacted by ramming. All exposed faces of the abutments shall be faced with a layer of two (2) inches of Portland cement mortar in proportion of one (1) part of the specified cement to two (2) parts of the specified sand. This facing to be so applied as to secure a perfect bond with the concrete before the same has taken its initial set. All exposed faces to be smooth and true to the form called for by the plans. The stone for concrete shall be of a quality approved by the Engineer, broken into angular pieces of a size small enough to pass through a ring one and one-half (1½) inches in diameter and entirely free from dust, sand, dirt or any foreign substance. The stone must be thoroughly drenched with clear water before mixing with the mortar.

Masonry.

11. All stone masonry shall consist of pitched draft, rock-faced work built in regular courses, said courses to be of a thickness as shown on plans.

Pointing.

12. All masonry shall be pointed so as to fill the joints solid. The surface of the wall shall be scraped clean and the joints freed of all mortar to a depth of one and one-half (1½) inches, and refilled solid by using proper ramming tools. Joints must be well wet before pointing.

Cramps.

13. Cramps shall be of such number and dimensions as shown on plan; these cramps shall be fitted into the course after it is laid and to be countersunk; and all the holes shall be filled with grout made of Portland cement after the cramps are inserted. Cost of furnishing and placing these cramps shall be included in the price bid per cubic yard for masonry.

Measurement.

14. Measurements of all masonry shall be by the cubic yard, and payments shall be made upon the actual cubical contents of the completed masonry within the lines as shown on plans.

Removal of Old Masonry.

15. The contractor shall remove such masonry from the old abutment as shown on plans or directed by the Engineer. The bid shall be per cubic yard for removing such masonry and shall include taking down the stone or concrete as well as removal of old cribwork, cofferdams and sheet piling; also cutting of any piles which may be found above elevation—16.

16. The Contractor shall remove such remnants to such place or places as directed by the Engineer, within a limit of five hundred (500) feet from the site of the bridge.

Temporary Roadway.

17. The contractor shall support the roadway as well as the sidewalk during the construction of the new abutment. After removing the pavement he shall plank the roadway with 4-inch plank supported on stringers spaced two feet c. t. c. For a span of twelve feet, he shall use a 4-inch x 16-inch stringer; for twelve to sixteen feet, he shall use a 6-inch x 16-inch stringer, and for sixteen to eighteen feet he shall use an 8-inch x 16-inch stringer. The beam carrying these stringers shall be 12-inch x 12-inch timber, supported by posts at such intervals as the Engineer may deem necessary.

18. The material used for this temporary work shall be white pine, sound and free from loose or rotten knots.

19. Payment for lumber in temporary roadway, as well as for sheet piling and bracing, shall be made per thousand feet B. M. as used in the work.

Connection of Old with New Work.

20. The contractor shall build the substructure to such elevation as will support the new girders of the superstructure. He will at no time be allowed to remove any part of the old abutment or the supports for the present structure until the old work is thouroughly connected with the new work. This particular feature is to prevent any moving or changing of position of the old structure from the position it now occupies.

Granite Pavement.

21. After the superstructure is completed and refilling made, the contractor shall remove all staging, false work and planking. The contractor shall thereafter relay all granite paving removed by him, using whatever material may be available from that originally removed. The price for relaying this pavement shall be by the square yard, and shall cover the necessary filling of sand and gravel beneath and between the blocks, and all other materials required to do the work in the usual and approved manner.

SPECIFICATIONS FOR SUPERSTRUCTURE.

PLANS.

Instructions for Bidding.

22. This work consists of furnishing, delivering and erecting in place all iron and steel work, all floor and sidewalk planking, all asphalt filling and all other work for which unit prices are not asked for herein. A lump-sum bid is required for the entire superstructure.

Stipulations.

23. All plans and drawings prepared by the Sanitary District for this work, with all notes, dimensions, figures and corrections thereon, shall be considered a part of these specifications, and in the event of any discrepancies between plans and specifications the judgment of the Chief Engineer shall be decisive thereon.

24. All shop plans required shall be made by and at the expense of the contractor, and submitted to the Chief Engineer for approval before beginning work, and at least six (6) sets of prints of such approved plans shall be furnished the Sanitary District free of cost. No alterations of approved plans will be permitted to be made by the contractor without the written consent of the Chief Engineer.

STEEL.

25. The approval of said plans by the Chief Engineer will not relieve the contractor from the responsibility of errors thereon.

26. Plans furnished by the Sanitary District shall be carefully checked by the contractor before beginning work. Should errors be discovered, the Chief Engineer's attention should be called to the same and corrections made, after which the contractor will be responsible for all errors which may occur or may have occurred.

27. All such working drawings submitted shall have a uniform size of twenty-six (26) inches by forty (40) inches inside border lines, with border margin of one-half (½) inch. When submitted for approval, a complete set of such drawings shall be presented.

QUALITY OF MATERIAL—WROUGHT IRON.

Rivet Iron.

28. All iron used for rivets shall have an ultimate tensile strength of not less than 48,000 pounds per square inch, an elastic limit of at least 26,000 pounds per square inch, and an elongation of at least twenty (20) per cent in eight (8) inches, and be so ductile that when bent cold through 180 degrees, and hammered down flat on itself, it shall show no sign of fracture on convex side of curve.

STEEL.

Character.

29. All steel shall be uniform in quality and made by the open hearth process.

30. Tests shall be made upon pieces cut from the finished material, and shall not be less than one-half (½) square inch in sectional area. Two pieces, one for tensile test, and one for bending test, shall be furnished for each blow or cast, and so selected that each heat or furnace full of billets, blooms or slabs shall be represented by at least one test to prove the condition of the metal after reheating, rolling, etc.

Medium Steel Tests.

31. When tested in specimens as above, dium steel shall have an ultimate tensile ength of from 60,000 to 68,000 pounds per uare inch, an elastic limit of not less than ,000 pounds per square inch, shall elongate t less than twenty-five (25) per cent in ght (8) inches, and show a reduction of a at point of fracture of not less than rty (40) per cent.

32. The test piece must also bend cold 180 degrees around a curve whose diameter is equal to the thickness of the piece without crack or flaw on convex side of bend.

33. A hole punched for a three-quarter (¾) inch rivet, one and one-half (1½) inches from the edge of plate, shall be capable of being enlarged by drifting to one and one-eighth (1⅛) inches in diameter without sign of fracture.

Rivet Steel.

34. Rivet steel shall have an ultimate strength of 50,000 to 58,000 pounds and an elastic limit of not less than fifty-five (55) per cent. of the ultimate, an elongation of not less than twenty-seven (27) per cent., and must bend 180 degrees flat on itself without sign of fracture on the convex side of the bend.

Rivets.

35. All hand driven rivets, whether, shop or field, shall be of the best quality of rivet iron, as specified.

36. Specimens taken from all grades of steel, after being heated to a light cherry red (as seen in the dark), and quenched in water of 82 degrees Fahrenheit, must conform to the bending requirements above.

Chemical Analysis.

37. The chemical analysis for carbon and phosphorus of each blow or cast must be furnished to the Engineer or his inspectors before any of the material rolled from said blow or cast is shipped from the mill. Phosphorus must not exceed six one-hundredths (0.06) per cent. for acid steel, or four one-hundredths (0.04) per cent. for basic steel.

Chipping and Alterations.

38. All blooms, billets or slabs shall be examined for surface defects, flaws or blow holes before being rolled into the finished sections, and such chippings and alterations made as will secure perfect solidity in the finished sections.

Marking.

39. The original blow or cast number must be painted or stamped on all blooms, billets or slabs in order to identify the material throughout the various processes of manufacture; and the original blow or cast number, together with the furnace heat number, must be *stamped* on each piece of finished material from said blow or heat.

40. All finished, rolled material must present a smooth, clean surface, free from buckles, flaws, cracks, ragged edges or any other defects, and must be straight throughout and true to section.

Brittle Steel.

41. No steel which proves brittle shall be used under any circumstances; if it develops this character at any stage of its manufacture, it shall be at once condemned and other material used. The object of the more particular clauses, hereto relating, being to guard against the possibility of the use of this class of metal.

CAST IRON.

42. Cast iron must be the best quality of soft gray iron. The castings must be free from flaws, ragged edges, or any other defects impairing its efficiency or appearance; and bars of a section one (1) inch square, placed four (4) feet six (6) inches between supports, must be strong enough to bear a weight of five hundred (500) pounds placed half way between supports.

TIMBER.

43. The roadway planking shall be of first quality, long leaf yellow heart pine, entirely free from sap and to be cut from live trees, grown south of the south line of Tennessee. To be straight, square edged, free from shakes, loose or rotten knots or other material defects.

WORKMANSHIP.

Character of Work.

44. All work must be done in a strictly first-class manner and shall at all times be subject to thorough and careful inspection.

45. Finished pieces shall be true to size, section and line, straight and out of wind at all points; and all machine, rivet and smith work done upon them shall be of the best character.

Straightening.

46. All material must be carefully straightened before being laid off.

Marking.

47. All parts which are given a descriptive letter or number in the drawings shall have that letter or number stenciled on them before shipment.

Annealing.

48. All steel tension members which have been heated shall, after work on them is completed, be thoroughly annealed by heating them uniformly to a cherry-red heat, and allowing them to cool slowly.

Splices.

49. Abutting joints shall be milled off to exact lengths, and square to the line of the cord, or to exact bevel, where required.

50. Pin holes shall be bored true to the line of stress and correct as to position.

Web Plates.

51. For all girders, web plates must be so arranged as not to project beyond the faces of the flange angles, nor be more than one-sixteenth (1-16) of an inch less on each edge than the distance out to out of the flange angles.

Matching.

52. After the splice plates are riveted on in the shops, each line of chords shall be assembled, the joints matched, their abutting surfaces brought to a tight fit by use of clamps, and all the rivet holes in the ends of chords and splices shall be reamed to an exact match and fit. Match marks shall then be made in each piece.

Riveting.

53. All rivets with crooked heads, or heads not formed centrally on the shank, or rivets which are loose, either in the hole or under the shoulder, shall be cut out and replaced with good rivets.

54. The diameter of the hole shall not exceed the diameter of the rivet more than one-sixteenth (1-16) of an inch.

55. All joint rivet holes shall be so accurately spaced that rivets of the proper size can be passed through all the holes in the joint after the parts are placed in position without the use of drift pins.

Reaming and Fitting.

56. All riveted work in medium steel shall be reamed.

57. All splice plates in which the holes are mismatched, either in the plates themselves or with the adjoining chord or flangs, shall be matched and the holes reamed to fit before leaving the shop.

58. No inaccurate or otherwise defective work will be accepted under any circumstances in connection joints or riveted work.

59. The riveted field connections of floor

beams, stringers, posts and struts must be accurately matched before leaving the shops, and all unmatched holes reamed to fit; the ends of floor beams and stringers must be machine faced to exact lengths.

60. Wherever practicable, rivets must be machine driven.

61. In all riveted steel work wherever reaming is specified, as in paragraph fifty-six (56), the punch hole shall be one-eighth (⅛) inch less than the size required, and shall then be reamed to fit.

Cambre.

62. The bridge shall be given a cambre not less than the deflection under extreme loads.

INSPECTION AND TESTS.

Specimens.

63. The contractor shall furnish complete facilities for inspection of material and workmanship. Small specimens for testing of material and also the necessary labor shall be furnished by the contractor without charge, when called for by the Engineer or inspector. Inspectors will be retained by the Sanitary District with full power to reject all work or material which does not in every way conform to the letter and spirit of the specifications.

Mill Testing.

64. All material shall be inspected at the mills where it is rolled.

65. Test specimens shall fairly represent material to be tested, and shall not in any way be worked on to alter quality before testing. They shall be cut whenever practicable so as to retain two opposite sides as they come from the rolls. Rods not exceeding one (1) square inch shall be tested in full size specimens.

66. Regular bending specimens shall be taken, one for every tensile test. They shall have the rough edges planed off, and shall be duplicates of, and cut from, the same originals as tensile tests for the same material.

67. Tests shall be sufficient in number to fairly represent, in the judgment of the Engineer, the material to be inspected; there shall, however, be no more than two (2) tests, *i. e.*, two (2) tensile and two (2) bending specimens, for every twenty pieces in the order.

68. The passing of any material at the mills shall not prevent its subsequent rejection for cause. If found defective after delivery, such material shall be replaced at the expense of the contractor.

PAINTING AND SHIPPING.

Painting.

69. All iron work before leaving the shop shall be thoroughly cleaned from all loose scales and rust and be given one good coat of Mineral Rubber Aetna Special H. A. Paint, or paint of equal excellence, well worked into all joints and open spaces.

70. In riveted work, the surfaces coming in contact shall each be painted before being riveted together. Bottoms of bed plates, bearing plates and any parts which are not accessible for painting after erection, shall have two coats of paint of the same brand.

71. After the structure is erected, the iron work shall be thoroughly and evenly painted with two additional coats of paint of the same brand, or paint of equal excellence. All recesses which will retain water or through which water can enter, must be filled with thick paint or some asphalt cement before receiving the final painting.

72. All those parts of the old structure which remain shall be thoroughly cleaned by scraping, then brushed with a wire brush and finally dusted off with a whisk. The object being to thoroughly remove all old paint, scale, rust or other substances injurious to painting.

73. After the old structure has been cleaned to the satisfaction of the Engineer, it shall receive three coats of the same brand of paint as specified above. However, no coat shall be put on before the preceding one is thoroughly dry.

74. After the painting is completed, the space between the webs of the new girders and the old ones shall be filled with the Assyrian Asphalt Co.'s Mineral Rubber Asphalt No. 1—2 L—2540 Special. This composition shall be heated to a temperature about 400 degrees Fahrenheit and run in hot. Provision must be made to hold the composition in place until it is thoroughly cooled.

75. All finished surfaces shall be coated with white lead and tallow before being shipped from the shop.

76. No painting shall be done in wet or freezing weather.

Shipping.

77. All parts shall be carefully loaded, so as to avoid injury in transportation, and shall be at the contractor's risk until erected and ready for the rails.

78. All screw ends shall be wrapped with twine before shipment.

79. All pins and small parts must be securely boxed, and the boxes plainly marked. The weights of large pieces must be marked on them. The invoices shall state the contents of each box and the weight and description of each piece that is not boxed, and two copies of each invoice shall be furnished the Sanitary District of Chicago.

ERECTION.

80. The contractor shall furnish all staging and false work, shall erect and adjust all the metal work, shall furnish and put in place all floor timbers, timber guards, also place the masonry bolts and secure them in place.

81. The contractor shall so conduct all of his operations as not to impede the traffic on public highway or interfere with the work of other contractors, or close any thoroughfare by land or water, except by written consent of the Chief Engineer.

82. The contractor shall assume all risk of accidents to men or material prior to the acceptance of the finished structure. The contractor must also remove all false work, piling and other obstructions, or unsightly material produced by his operations.

83. The contractor shall, after the entire structure is erected and painted, relay all cedar block pavement on the approach span which he had to remove in order to prosecute his work. On that part of the approach span where a new cedar block pavement is required he shall furnish all cedar block, planking and paving composition, and all other material necessary to do the work in accordance with the latest specifications issued by the City of Chicago for this class of work. The payment shall be per square yard of such pavement laid or relaid.

FINAL ACCEPTANCE.

84. Any material or workmanship which does not satisfy the requirements of these specifications may be rejected by the Chief Engineer at any time before the final acceptance of the work, and the contractor shall make good all deficiencies at his own cost. The fact that the authorized inspectors have accepted said material or workmanship shall not make the Sanitary District liable for extra cost above that specified in the contract for replacing same with material or workmanship accepted by the Chief Engineer on final acceptance.

GENERAL CONDITIONS.

Changes in Plan.

85. The amount of masonry figured from the plans is approximate, and the Sanitary District reserves the right to make alterations in the line, grade, plan, form or dimensions of the work herein provided for, either before or after beginning the construction thereof; provided, that if alterations are made, the general character of the work as a whole is not thereby changed. If such alterations diminish the quantity of work to be done they shall not constitute a claim for damages nor for anticipated profits on the work that may be dispensed with; if they increase the amount of work, such increase shall be paid for according to the quantity of work actually done. and at prices and rates established for such work under this contract.

86. Notice of change of plan must be given to the contractor in writing, and it is expressly agreed that no alterations or additions or extra work are to be paid for unless directed in writing.

Extra Work.

87. All claims for extra labor or material furnished by the contractor or for damages from any cause whatever must be reported to the Engineer at the time such labor or material are furnished or such damages occur, and they must also be presented to him in writing at the end of the month; provided that nothing shall be paid for as extra work that can be classified under any of the heads upon which prices are fixed by this contract.

88. Whenever work is required to be done, which is not now contemplated or covered by the prices hereinafter given, the Engineer shall fix such prices for the work as he shall consider just and equitable, and the contractor shall abide by such prices, provided he enters upon such work with full knowledge of the prices so fixed by the Engineer; but if the contractor declines executing said work at the prices fixed by the Engineer, then the Sanitary District may enter into contract with any person or persons for its execution, the same as if this contract had never ex-

isted; and if extra work, or work not provided for in this contract, is performed by the contractor, before prices have been fixed for such work, then the Engineer shall estimate the same at such prices as he shall deem just and reasonable, and his decision shall be final, and the said contractor shall accept such prices in full satisfaction of all demands against the Sanitary District for said extra work; provided, that if the extra work done under this contract is of such a nature, being distinct from other work being done by said contractor, that the actual cost of the same can be determined, then the said contractor shall receive, and the Sanitary District shall pay, in full satisfaction for the same, the actual cost of the work with fifteen (15) per cent added. Provided, further, that nothing shall be deemed extra work which can be measured or estimated under the provisions of this contract.

89. It is further agreed that in all cases of question or dispute arising or growing out of this contract in any way regarding the cost or value of extras, variations, allowances, deductions or the amount of damages in any manner growing out of the violation of this contract, the decision of the Engineer shall be final and binding on both parties hereto.

Responsibility of Contractor.

90. All the work provided for in this contract is to be done under the direction and supervision of the Chief Engineer and his properly authorized agents. The contractor is to be guided by the lines, stakes, marks and grades given by them, and is to carefully preserve the same as far as possible during the progress of the work; and is to furnish all needed facilities, without charge therefor, to enable the Engineer to properly give lines and grades and to measure the work from time to time.

91. All work will be subject to inspection by the said Engineer and his said agents, and if not in accordance with the requirements of this contract is to be made good by the contractor. The contractor will be responsible for the entire work until completed and accepted by the Sanitary District. The contractor will be required to give his personal attention to the fulfillment of this contract and to the execution of the work. He is to keep the same under his control, and will not be allowed to sublet all or any part of it; it being distinctly understood and agreed that the subletting of the work covered by this contract, or any part thereof, shall, after thirty (30) days' notice, work a forfeiture of the contract at the option of the Sanitary District.

92. The contractor will be required to safely maintain all traffic in a manner as hereinbefore stipulated in the construction of the work herein provided for; and will also be required to make all necessary changes in the structure as directed by the Chief Engineer, so as to enable him to construct the work herein provided for without any additional expense to the party of the first part.

93. The contractor will not be allowed to assign, by power of attorney or otherwise, any portion of the moneys that may become due through the workings of this contract. In case the contractor fails to comply with the provisions of this contract, as to progress and character of work, he shall be duly notified in writing, and thirty (30) days after the giving of said notice the party of the first part may declare this contract forfeited, if there is substantial failure to comply with its provisions.

Tools.

94. The contractor is to furnish all the tools of every kind and description, including pumps, cars and tracks necessary to the full and complete carrying out of this contract, and on completion of the work is to remove all tools, buildings and material of all kind from the right of way of the Main Drainage Channel.

Precautions.

95. Whatever precautions may be necessary to render any portion of the work more secure in any respect, or to decrease the liability of accident from any cause, or to avoid contingencies which are liable to delay the completion of the work, shall be taken by the contractor.

Workmen.

96. The contractor shall employ competent foremen and laborers, and shall discharge, at the request of the Engineer, any incompetent or unfaithful men in his employ. None but men expert in their respective branches of work will be employed where special skill is required, and in the employment of men preference shall be given to union laborers.

97. It is especially understood and agreed that eight (8) hours shall constitute a day's

work and that no workman shall be employed or required to work more than eight (8) hours out of any twenty-four (24) hours, and no work in excess of that time shall be allowed.

98. In the event of any violation of the above eight (8) hour provision it is agreed hereby that the said District shall, and that it is duly authorized to retain from any money due or to become due at any time from it to the second party, as liquidated damages, the sum of five ($5) per hour for each hour that any employe shall be required to work in excess of eight (8) hours per day, pursuant to the terms and conditions of the ordinance adopted June 23d, 1897, attached hereto.

Patents.

99 It is further agreed that the second party shall indemnify, keep and save harmless said first party from all liabilities, judgments, costs, damages and expenses which may in any wise come against said first party, or which may result on account of any infringement of any patent by means of the use of any materials, machinery, device or apparatus used in the performance of this contract, or of designs furnished by second party and accepted by the Sanitary District; and in the event of any claim or suit or action at law or equity of any kind whatsoever being made or brought against said first party, then first party shall have the right to retain a sufficient amount of money in the same manner and upon the same conditions as hereinafter in the next following clause of this contract provided

Damages.

100. If any damage shall be done by the contractor, or by any person or persons in his employ, to the owner or occupants of land or to any property adjoining or in the vicinity of the work herein contracted to be done, or to a neighboring contractor, the Engineer shall have the right to estimate the amount of said damage, and to cause the Sanitary District to pay the same to the said owner or occupant, and the amount so paid for said damage shall be deducted from the money due from said contractor under said contract.

101. Said contractor covenants and agrees to pay all damages for any personal injury sustained by any person growing out of any act or doing of himself or his employes that is in the nature of a legal liability, and he hereby agrees to indemnify and to save the Sanitary District harmless against all suits or actions of every name and description brought against the said Sanitary District for or on account of any such injuries or such damages received or sustained by any person or persons by or from said contractor, his servants, agents or employes, in the execution of said work; or by or in consequence of any negligence in guarding the same; or by or on account of any act or omission of said contractor, his agents or employes; and the said contractor further agrees that so much of the money due to him, under and by virtue of this contract, as shall be considered necessary by the Board of Trustees of the Sanitary District, may be retained by the said Sanitary District until such suit or claim for damages, as aforesaid, shall have been settled, and evidence to that effect furnished to the satisfaction of the said Board of Trustees.

Time.

102. The contractor agrees to begin the work covered by this contract within fifteen (15) days after said contract shall have been executed and to prosecute the building of the substructure herein provided for so as to complete the same on or before April 1, 1899; and to complete the superstructure so as to be ready for traffic on or before June 15, 1899.

Prices.

103. In consideration of the said work being carried on and completed in the time and manner as hereinbefore specified, the said party of the first part agrees to pay to the said party of the second part the following amounts, and the said party of the second part agrees to receive and accept the same as full compensation for the performance of the work, including the furnishing of the materials, tools, labor, etc., to wit:

a.—For each cubic yard of excavation, price to include all refilling, as specified, the sum of eighty-two and one-half cents (82½c).

b.—For timber in temporary work, sheet piling and bracing in place, per thousand (1,000) feet B. M. (price to cover all spikes, bolts, or other iron to be used in constructing same) as per terms of this contract, the sum of thirty and twenty-five hundredths dollars ($30.25).

c.—For timber in foundation, per thousand

(1,000) feet B. M. (price to cover all spikes, bolts or other iron to be used in constructing same) as per terms of this contract, the sum of forty-one and wenty-five hundredths dollars ($41.25).

d.—For each cubic yard of Portland cement concrete, as specified, the sum of seven and fifteen hundredths dollars ($7.15).

e.—For each cubic yard of completed stone masonry, the sum of six and eight hundred and seventy-five thousandths dollars ($6.875).

f.—For each cubic yard of old masonry removed, the sum of one and three hundred and seventy-five thousandths dollars ($1.375).

g.—For each square yard of granite pavement relaid, the sum of one and eight hundred and seventy-five thousandths dollars ($1.875).

h.—For superstructure complete, as specified, the sum of six thousand seven hundred and fifty and no hundredths dollars ($6,750.00).

i.—For extra medium of soft steel, erected in place, the sum of four (4c) cents per pound.

j.—For extra lumber, built in place, the sum of thirty and no hundredths dollars ($30.00) per thousand feet B. M.

k.—For each square yard of cedar block pavement laid or relaid on approach span, the sum of one and three hundred and seventy-five thousandths dollars ($1.375).

104. The prices proposed must include all royalties for patents or patented material and appliances used in the construction of the work described in the specifications and agreements; and before final payment is made the contractor shall furnish a satisfactory guarantee against all claims.

Time and Manner of Payment.

105. It is agreed by the party of the first part that on or before the 10th and 25th days of each month during the progress of the work, and subject to the provisions hereinbefore specified under the head of "Time," payment will be made to the said party of the second part to the amount of eighty-seven and one-half (87½) per cent of the contract price of the substructure of the approximate amount of work done during the previous half month, upon written certificate from the Engineer that such approximate amount of work has been done during that period; twelve and one-half (12½) per cent. being reserved until the completion and acceptance of the whole work.

106. It is agreed by the party of the first part that when the entire iron work shall have been delivered at the site of erection, payment shall be made by the party of the second part to the amount of sixty (60) per cent. of the contract price of the superstructure upon written certificate from the Chief Engineer that such approximate amount of work has been done. The remaining forty (40) per cent. to be paid within thirty (30) days after the completion of the work and its acceptance by the party of the first part.

Certificate.

107. Upon the completion of the substructure in accordance with the specifications and contract, to the full satisfaction of the Chief Engineer, and upon the inspection of same and the issuance of the final certificate by the Chief Engineer, the said party of the first part agrees to pay to the said party of the second part the amounts shown to be due to said second party by the said certificate of the said Chief Engineer, including the twelve and one-half (12½) per cent. reserved.

108. Upon the completion of the superstructure in accordance with the specifications and contract, to the full satisfaction of the Chief Engineer, and upon the inspection of same and the issuance of the final certificate by the Chief Engineer, the said party of the first part agrees to pay to the said party of the second part the amount shown to be due to the said party of the second part by the said certificate of the said Chief Engineer.

Failure to Complete.

109. It is further agreed by the said party of the second part that, if the work to be done under this contract on the substructure shall be abandoned, or if it shall be assigned by him, or if he loses control of the work from any cause, excepting acts of God and the public enemy, or if the rate of progress is not such as to insure its completion, within the time specified, or if at any time the Engineer shall be of the opinion, and shall so certify in writing to the said party of the first part, that said work or any part thereof is unnecessarily and unreasonably delayed, or that the contractor is willfully and persistently violating any of the conditions or covenants of this contract,

or is not fulfilling said contract in good faith, the said party of the first part shall have the power to notify the said contractor to discontinue all work, or any part thereof, as may be designated by the said party of the first part, and the said party of the first part shall thereupon have the power either to complete said work by contract or to employ such men and teams, and to obtain such machinery, implements and tools, and to purchase such material as the said Engineer may deem necessary to complete the work herein described, or any part thereof. And in so doing said Engineer may use such tools, implements and materials as may be found upon the line of said work. The cost of doing such work by the said Engineer shall be charged to the said contractor, and the expense so charged shall be deducted and paid by the said party of the first part out of such moneys as may be due, or may at any time thereafter become due to said contractor under and by virtue of this contract, or any part thereof, so far as the same shall suffice therefor; and the balance, if any, shall be paid by said contractor on demand.

110. The entire metal work for the structure herein provided for shall be delivered at the site of the erection on or before April 1, 1899, and all the work of the superstructure to be done under this contract shall be completed and ready for inspection on or before the 15th day of June, 1899.

111. Should there be a failure by the second party to deliver said iron work of the character and strength herein provided for at the time herein specified, or if, after delivery of same as herein provided, said contractor shall fail financially, either before or after having been paid the sixty (60) per cent. of the contract price as hereinbefore provided, and be unable to carry out said contract and complete said work, then, in that case, the said party of the first part shall have the power to complete said work by contract or otherwise, at its discretion, and charge up the cost of so completing the said work to said contractor. Should the amount remaining unpaid of the contract price not suffice therefor, then said contractor and his bondsmen shall be held liable for the deficiency.

Failure to Pay Laborers.

112. If at any time during the progress of said work the said contractor shall fail or neglect to pay for labor performed or material furnished upon said work, for ten (10) days after it shall have become due, then the party of the first part shall have power to pay for such labor or for materials, tools, explosives, machinery, appliances, fuel, provisions or supplies of any sort or kind used or consumed in, upon or on account of the work covered by this contract; the party of the first part shall have the power to pay for such labor or materials, explosives, machinery, appliances, fuel, provisions or supplies of whatsover sort or kind, out of moneys that may be due to said contractor, and said amount so paid shall be retained out of any money due or to become due to said contractor. In any such case the party of the first part is hereby authorized and empowered by the party of the second part to ascertain by its Engineer the amounts due or owing from said contractor to any laborer or laborers or to any person or persons for materials, tools, explosives, machinery appliances, fuel, provisions or supplies of any sort or kind consumed upon, in or on account of the work covered by this contract in such manner and upon such proofs as the said Engineer may deem sufficient.

Contractor's Bond.

113. The contractor shall furnish a bond in the sum of five thousand ($5,000) dollars for the substructure and superstructure of the change in Van Buren Street Bridge across the By-pass, with good and sufficient sureties, the same to be satisfactory to the Board of Trustees of the Sanitary District, conditioned upon the faithful performance of all the terms and conditions of this contract; and should the sureties on said bond at any time fail financially, or be, in the opinion of the said Board of Trustees, insufficient security for the penalty of said bond, then, in that case, they may, on giving ten (10) days notice thereof in writing, require said contractor to furnish a new and additional bond in the place of the bond so having become insufficient or worthless.

Final Payment.

114. The said party of the second part further agrees that he shall not be entitled to demand or receive final payment for any portion of the aforesaid work or materials except in the manner set forth in this agreement, nor until all of the stipulations hereinbefore mentioned are complied with, and the said Chief Engineer shall have given his certificate to that effect; whereupon the said party of the first part will, at the expiration of

thirty (30) days after such completion and delivery of such certificate, pay, and it hereby binds itself to pay, the said party of the second part, in cash, the whole amount of money accruing to said second party under this contract, excepting such sum or sums of money as may be lawfully retained under any of the provisions of this contract hereinbefore set forth. Provided, that nothing herein contained shall be construed to affect the right hereby reserved of the said party of the first part to reject the whole or any portion of the aforesaid work should the said certificate be found to be inconsistent with the terms of this agreement, or otherwise improperly given.

In Witness Whereof, on the day and year first above written, the said Sanitary District of Chicago has caused this agreement to be signed by its President and attested by its Clerk, and its corporate seal to be hereto affixed, and the said party of the second part has hereunto set its hand and seal.

The Sanitary District of Chicago.

By WILLIAM BOLDENWECK,
President.

Attest:

JOSEPH F. HAAS,
[SEAL.] Clerk.

Chicago Bridge and Iron Company,

By HORACE E. HORTON,
President.

[SEAL] HENRY W. WILDER,
Secretary."

REPORT AND ORDER IN REFERENCE TO APPOINTMENT OF COMMISSIONERS FOR INSPECTION OF WORK OF SANITARY DISTRICT.

Mr. Wenter, Chairman, presented and the Clerk read a report from the Joint Committee on Federal Relations and Engineering in reference to and accompanied by the order for appointment of commissioners for the inspection of the rk of the Sanitary District, presented d referred to that Committee at the eting held December 28, 1898, (page 77 of the Proceedings), and also the ler of same general nature presented d referred to the Joint Committee on deral Relations and Health and Public der at the meeting held December 21, 98, (page 5355 of the Proceedings), the port recommending the adoption of e order presented at the meeting held cember 28, 1898.

Mr. Wenter, seconded by Mr. Jones, moved that the report be adopted and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Eckhart, Jones, Kelly, Smyth and Wenter—seven. Nays—Messrs. Carter and Mallette—two.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, January 9, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Your Joint Committee on Federal Relations and Engineering, to whom was referred at the meeting of the Board of Trustees held December 28, 1898, (page 5377 of the Proceedings) the order presented by Trustee Alexander J. Jones to said Board as an amendment to the order heretofore presented by Trustee Frank Wenter at the meeting of the Board held on December 21, 1898, and which was referred to the Joint Committee on Federal Relations and Health & Public Order (page 5355 of the Proceedings), herewith desires to report that the Committee has considered the subject matter of said order, and believing that the time is now ripe for the appointment of Commissioners by the Governor of the State of Illinois to inspect the Main Drainage Channel of the District, and that official notice of the completion of the Main Drainage Channel should be given by this Board to His Excellency, Governor John R. Tanner, in order that said Commission may be appointed and proceed without delay to the inspection of the work of said Main Drainage Channel as provided by law.

The Committee returns herewith the order presented as aforesaid at the meeting held December 28, 1898, and recommends its adoption.

Respectfully submitted,

FRANK WENTER,
Chairman.
B. A. ECKHART,
THOMAS A. SMYTH,
THOMAS KELLY,
ALEX. J. JONES,
WM. BOLDENWECK,

Joint Committee on Federal Relations and Engineering."

The following is

THE ORDER AS ADOPTED:

"WHEREAS, The Act of the General Assembly, under which was organized the Sanitary District of Chicago, provides that before the waters of Lake Michigan shall be turned into the Main Drainage Channel, authority therefor shall be first secured from the Governor of the State of Illinois, upon the certificate of commissioners to be appointed by him, finding that said Channel has been constructed in accordance with the requirements of law; and

WHEREAS, The Main Drainage Channel of the Sanitary District is now completed in conformity with law and with special regard for the requirements of Section 23 of the Act creating Sanitary Districts; and

WHEREAS, The auxiliary work in the Chicago River and in the Desplaines at Joliet is nearing completion and the time has arrived for the inspection by the Commissioners to be appointed by the Governor and the engineers appointed by them of the Main Drainage Channel, constructed by the Sanitary District of Chicago; therefore be it

Ordered, That it is the sense of the Board of Trustees of the Sanitary District of Chicago that the Governor of the State of Illinois should be notified of the completion of the Main Drainage Channel and invited, in accordance with Section 27 of the Act creating Sanitary Districts, to appoint three commissioners of the proper geographical location to inspect the work of the Sanitary District of Chicago and report thereon, to the end that the inspection by the state may involve the least possible delay in the opening of the Drainage Channel to the waters of Lake Michigan and the sewage of the Sanitary District and the uses and purposes for which it is designed.

Ordered Further, That the President and Clerk of the Board of Trustees be directed to transmit a copy of this action, under the seal of the Sanitary District to the Governor of the State of Illinois, and that the Committee on Finance be directed to audit and report for payment to the Board of Trustees, from time to time, the bills for salaries of such commissioners and engineers, together with their reasonable expenses and outlays, as the same may be transmitted to the Board of Trustees of the Sanitary District of Chicago by the State Treasurer of the State of Illinois."

COMMUNICATION IN REFERENCE TO RELEASE OF BOND ON CONTRACT FOR BRIDGE SUPERSTRUCTURE ACROSS DESPLAINES RIVER ON LINE OF SUMMIT AND LYONS HIGHWAY.

The Clerk presented a communication from John C. Darst, agent, transmitting a letter from the Massillon Bridge Company in reference to release of bond on contract for bridge superstructure across Desplaines River on line of Summit and Lyons Highway, which was referred to the Joint Committee on Finance and Judiciary by unanimous consent.

ADJOURNMENT.

On motion of Mr. Wenter, seconded by Mr. Mallette, the Board then adjourned.

Joseph F. Haas

Clerk.

PROCEEDINGS

—OF THE—

BOARD OF TRUSTEES

—OF THE—

SANITARY DISTRICT OF CHICAGO.

JANUARY 14, 1899.

OFFICIAL RECORD.

Published by authority of the Board of Trustees of the Sanitary District of Chicago.

REGULAR MEETING.

The four hundred and twenty-first regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Saturday, January 14, 1899, at 2 o'clock P. M.

On roll-call Messrs. Boldenweck, Carter, Jones, Kelly, Mallette, Smyth and Wenter—seven members, were present.

President Boldenweck then called the Board to order.

*VOUCHERS.

The Clerk presented the following vouchers:

ENGINEERING DEPARTMENT.

W. M. Hughes (services, Consulting Engineer)	$ 270 80	
Donald Fraser (iron and steel inspection)	267 50	
		$ 538 30

LAW DEPARTMENT.

R. C. McClure (Joliet expense)	$ 342 00	
Frank Vander Bogart, clerk (court costs)	500 00	
		$842 00
Grand total		$ 1,380 30

*To be paid by warrants, with interest coupons attached, drawn against the Tax Levy for 1898.

Mr. Carter, seconded by Mr. Wenter, moved that the vouchers, as read and shown above, be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Carter, Jones, Kelly, Mallette, Smyth and Wenter—seven. Nays—none.

Upon this result the President declared the motion carried.

SEMI-ANNUAL PROPERTY RETURN FROM LAW DEPARTMENT.

The Clerk presented a report from the Attorney transmitting the semi-annual property return from the Law Department for the six months ending January 2, 1899, which, on motion of Mr. Wenter, seconded by Mr. Smyth, was ordered printed and placed on file, by unanimous consent.

The following is

THE REPORT:

"CHICAGO, January 2, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN — I have the honor to transmit the semi-annual report of personal property under the control of this department in Chicago and Joliet for the six months ending January 2, 1899.

Respectfully submitted,

CHARLES C. GILBERT,

Attorney."

(Accompanied by property return.)

REPORT IN REFERENCE TO COMPLETION OF CONTRACT FOR SUBSTRUCTURE OF WILLOW SPRINGS HIGHWAY BRIDGE ACROSS MAIN CHANNEL ON SECTION 1.

Mr. Smyth presented, and the Clerk read, a report from the Committee on Engineering in reference to and accompanied by the final certificate of the Chief Engineer as to the completion of the contract with Messrs. Sackley & Peterson for the substructure of the Willow Springs Highway bridge crossing the Main Channel on Section 1, presented and referred to that Committee at the meeting held January 4, 1899, (page 5391 of the Proceedings), the report recommending that the President and Clerk of the District be authorized and directed to make final payment to the said Sackley & Peterson in the sum of $1,881.02, under conditions and stipulations as set forth in the report.

Mr. Smyth, seconded by Mr. Mallette, moved that the report be received and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Carter, Jones, Kelly, Mallette, Smyth and Wenter—seven. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, January 13, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Your Committee on Engineering, to which was referred (page 5391 of the Proceedings) the final certificate of the Chief Engineer of the District, in reference to the contract with Messrs. Sackley & Peterson for the substructure for the Willow Springs Highway Bridge crossing the Main Channel on Section 1, herewith desires to report that the Committee has examined said certificate and fully considered the subject matter of the completion of the work done under the said contract, and recommends as follows:

That the President and Clerk of the District be authorized and directed to make final payment to said Messrs. Sackley & Peterson, in the sum of one thousand, eight hundred eighty-one and two hundredths ($1,881.02) dollars, the sum found to be due said contractors in the aforesaid final certificate hereto attached, upon the execution of a receipt in favor of the District, to be made by said contractors in full, and releasing the District from any and all claims and demands of whatsoever kind or nature in said contract.

Respectfully submitted,

(Signed) THOMAS A. SMYTH,
Chairman.
J. P. MALLETTE,
THOMAS KELLY,
Z. R. CARTER,
FRANK WENTER,
WM. BOLDENWECK,
Committee on Engineering."

(One enclosure.)

The following is

THE CERTIFICATE OF THE CHIEF ENGINEER.

"CHICAGO, Jan. 4, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I hereby certify that Sackley

& Peterson have completed all of the work covered by their contract, dated August 19, 1898, for excavating foundations, piling and masonry for the Willow Springs Road Bridge substructure on Section 1 of the Main Channel, together with three items of extra work. The work is done to the full satisfaction of the Chief Engineer and in accordance with the terms of said contract with this District.

This certificate is given subject to any unaccrued or unmatured obligations imposed by the contract.

The volume and value of the work done is as follows:

Excavation, 1,233 cubic yards at $1.00	$1,233 00
Piles furnished and driven, 400 lineal feet at $1.00	400 00
Portland cement concrete, 179.4 cubic yards at $5.00	897 00
Masonry, 419.2 cubic yards at $11.50	4,820 80
Extra excavation between center pier and north aoutment, 851 cubic yards at 40 cents	340 40
Extra work changing Willow Springs road	$ 114 71
Extra work and material deflecting Willow Springs Temporary Bridge	112 61
Total amount earned	$7,918 52
Total amount paid	6,037 50
Total amount due and unpaid	$1,881 02

Respectfully submitted,

(Signed) ISHAM RANDOLPH,

Chief Engineer.

ADJOURNMENT.

On motion of Mr. Wenter, seconded by Mr. Smyth, the Board then adjourned.

Joseph F. Haas

Clerk.

PROCEEDINGS

—OF THE—

BOARD OF TRUSTEES

—OF THE—

SANITARY DISTRICT OF CHICAGO.

JANUARY 18, 1899.

OFFICIAL RECORD.

Published by authority of the Board of Trustees of the Sanitary District of Chicago.

REGULAR MEETING.

The four hundred and twenty-second regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Wednesday, January 18, 1899, at 2 o'clock P. M.

On roll-call Messrs. Boldenweck, Braden, Carter, Eckhart, Kelly, Mallette, Smyth and Wenter—eight members, were present.

President Boldenweck then called the Board to order.

VOUCHERS.

The Clerk presented the following vouchers:

ENGINEERING DEPARTMENT.

Pygant & Ayres (rent, Corwith, November, 1898)	$ 12 50
H. Alexander (rent, Lockport, December, 1898)	17 00
Owen W. Curtis (coal)	5 75
Torton & Co. (coal)	12 02
Samuel L. Hanks (ice, December, 1898)	11 50
C. S. Austin (ice, Rialto Building, June to December, 1898)	17 50
Samuel Harris & Co. (sundries)	19 20

Pearson Bros. (blue prints)	$ 25 00	
Wm. Trinkaus (expense)	17 48	
G. M. Wisner (expense)	38 35	
H. B. Alexander (expense)	53 47	
W. T. Keating (expense)	63 38	
Isham Randolph (traveling and expense)	133 30	
Robt. W. Hunt & Co. (inspecting bridge material)	391 22	
Pittsburgh Testing Laboratory, limited (inspecting bridge material)	379 55	
Illinois Central Railroad Co., lessee (inspecting bridge material)	228 70	
		$ 1,425 92

CLERICAL DEPARTMENT.

The Chicago Towel Supply Company (toweling, December, 1898)	$ 2 50	
Samuel L. Hanks (ice, December, 1898)	2 50	
White Rock Mineral Spring Company (water)	3 75	
Thayer & Jackson Stationery Company (stationery)	4 04	
The Ryan & Hart Company (stationery)	5 25	
P. F. Pettibone & Co. (stationery)	7 25	
Thos. S. Bell (expense)	5 82	
		$ 31 11

LAW DEPARTMENT.

Samuel L. Hanks (ice, December, 1898)	$ 2 50	
Jacobs, Coles & Co. (stationery)	4 65	
Edwards & Hancock (stationery)	12 90	
Frank Shepard (notations)	7 00	
Callaghan & Co. (law books)	9 25	
Edward Thompson Company (law books)	12 00	
The Typewriter Inspection Company (repairs)	12 00	
Walton & James (stenography)	5 50	
W. H. Richardson (Law Institute membership)	85 00	
J. L. Bennett (court reporting)	284 00	
Louis C. Jaquish (court reporting)	635 00	
W. M. McEwen (attorney fees)	1,550 00	
John P. Wilson (attorney fees)	1,576 70	
Chas. C. Gilbert (expense)	135 75	
		$ 4,332 25

GENERAL ACCOUNT.

The Chicago Dispatch (advertising proposals)	$ 19 20	
The Inter Ocean (advertising proposals)	10 50	
The Engineering Record (advertising proposals)	47 00	
The Engineering News Publishing Company (advertising proposals)	16 50	
The Economist Publishing Company (advertising proposals)	10 80	
The Construction News Company (advertising proposals)	14 25	
Railroad Gazette (advertising proposals)	19 00	
American Contractor Publishing Company (advertising proposals)	20 55	
Chicago Daily Law Bulletin (publishing ordinance)	14 90	
Boston Daily Advertiser (advertising bonds)	9 38	
Public Ledger (advertising bonds)	12 20	
The Evening Post (advertising bonds)	22 50	
Chas. Werner (livery)	10 00	
Geo. B. Norton (livery)	8 50	
Isham Randolph (traveling)	38 00	
C. L. Ricketts (engrossing)	100 00	
Western Bank Note and Engraving Company (engraving bonds)	331 75	
Security Deposit Company (rent, January, 1899)	483 33	
John F. Higgins (printing Proceedings, December, 1898)	378 12	
Joseph F. Haas, Clerk (expense)	110 79	
		$ 1,677 27

POLICE DEPARTMENT.

W. T. Conklin (coal)	$ 2 75	
Mrs. A. Hartwig (laundry)	4 00	
The Ryan & Hart Company (stationery)	5 50	
W. L. Felkner (expense)	1 94	
D. C. McCarthy (expense)	8 29	
E. J. Coen (expense)	36 25	
Standard Oil Company (oil)	13 49	
Ogden, Sheldon & Co. (rent)	50 00	
		$ 122 22

MAINTENANCE ACCOUNT.

H. B. Alexander (expense)	$ 9 60	
Weaver Coal Company (coal)	281 70	
		$ 291 30

CONSTRUCTION ACCOUNT.

A. T. Wilcox (Section O—P. H. temporary bridge)	$ 40 46	
Chicago Star Construction and Dredging Co. (Section O, Junction Railway Bridge)	732 16	
Hayes Bros. (Section 16, trestle and roadway)	1,500 00	
		$ 2,272 62
Grand total		$10,152 69

*To be paid by warrants with interest coupons attached, drawn against the Tax Levy for 1898, as follows:

F. M. Blount, Treasurer (sundry persons, $50.00 and less)	$ 678 31
Construction Account, to contractors	2,272 62
All others, direct to creditors	7,201 76
Total	$10,152 69

Mr. Carter, seconded by Mr. Wenter, moved that the vouchers, as read and shown above, be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Kelly, Mallette, Smyth and Wenter—eight. Nays—none.

Upon this result the President declared the motion carried.

REQUISITION.

The Clerk presented the following requisition:

No. 591, Engineering Department (quarterly supplies) $396 75

On motion of Mr. Eckhart, seconded by Mr. Mallette, requisition No. 591, as read and shown above, was referred to the Committee on Engineering by unanimous consent.

WEEKLY REPORT ON EMPLOYES.

The Clerk presented a report in accordance with the rules, showing the number of persons in the employ of the District for the week ending January 14, 1899, which was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, January 18, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the week ending January 14, 1899, as the same have been reported to me:

Engineering department	78
Maintenance account	8
Clerical department	5
Law department	8
Treasury department	1
Police department	29
Telephone operator	1
Total employes	130

Respectfully submitted,

(Signed) JOSEPH F. HAAS,

Clerk."

RELEASE OF SURETIES ON BOND ON CONTRACT FOR SUPERSTRUCTURE OF E. J. & E RY. BRIDGE ACROSS DESPLAINES RIVER AND ALSO ON CONTRACT FOR SUBSTRUCTURE OF S. W. BOULEVARD BRIDGE ACROSS MAIN CHANNEL.

Mr. Mallette, Chairman, presented and the Clerk read a report from the Committee on Judiciary with reference to the release of sureties on bond on the contract for the superstructure of the E. J. & E. Railway Bridge across the Desplaines River, and also on the contract for the substructure of the Southwest Boulevard Bridge across the Main Channel, a communication in reference to the latter having been presented and referred to that Committee at the meeting held December 14, 1898 (page 5345 of the Proceedings); the report being accompanied by correspondence in reference thereto, and recommending that the sureties on the bonds now on file with said contracts be released from further liability, the contractors, however, to remain liable thereon.

Mr. Mallette, seconded by Mr. Wenter, moved that the report be adopted and the recommendations contained therein concurred in.

On roll call the vote stood: Yeas—Messrs. Boldenweck, Carter, Eckhart, Kelly, Mallette, Smyth and Wenter—seven. Nays—None.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO January 16, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—The Committee on Judiciary herewith makes report that communications from the City Trust Safe Deposit & Surety Company, of Philadelphia, addressed to James Reddick, Clerk, and to the Board of Trustees, have been handed to the committee, and that said communications contain a request for release of sureties on bonds of contracts executed by J. G. Wegner, of Milwaukee, Wis., and of Benezette Williams, of Chicago, Ill., respectively, upon the work of constructing the superstructure of the Elgin, Joliet & Eastern Railway bridge across the Desplaines River, and also upon the work of constructing the substructure of the Southwest Boulevard bridge across the Main Drainage Channel, respectively.

The Committee advises that the contracts upon each portion of the work as above mentioned have long since been completed, and that final payment has been made as to each contractor, in accordance with the final certificate of the Chief Engineer of the District. That the necessity for surety bonds upon said contracts has become obviated, and that the District, without loss or damage to it, might release the sureties upon said bonds.

The Committee therefore recommends that the sureties upon the bonds now on file with the contracts for the work as above mentioned, be released from further liability thereon, the contractors, however, to remain liable thereon.

Respectfully submitted,

(Signed) J. P. MALLETTE,
Chairman.

B. A. ECKHART,
THOMAS KELLY,
J. C. BRADEN,
Committee on Judiciary."

RELEASE OF SURETIES ON BOND ON CONTRACT FOR SUBSTRUCTURE OF KEDZIE AVENUE BRIDGE ON SECTION N.

Mr. Mallette, Chairman, presented and the Clerk read a report from the Joint Committee on Judiciary and Finance with reference to and accompanied by a communication from the Chicago Star Construction and Dredging Company as to the release of their bond on contract for the substructure of Kedzie Avenue Bridge on Section N, presented and referred to that Committee at the meeting held December 31, 1898, (page 5388 of the Proceedings) the report recommending that the surety on the original bond be released from further liability, the contractor, however, to remain liable thereon, provided said contractor shall furnish a new bond in the sum of $2,000 with surety thereon satisfactory to the Board.

Mr. Mallette, seconded by Mr. Braden, moved that the report be adopted and the recommendations contained therein concurred in.

On roll call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Kelly, Mallette, Smyth and Wenter—eight. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, Jan. 16, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN: Your Joint Committee on Judiciary and Finance herewith reports that the Committee has received a communication from the Chicago Star Construction and Dredging Company, requesting a release of surety upon the bond furnished by said company upon its contract for the construction of substructure of Kedzie Avenue Bridge on Contract Section "N."

Final payment has been made to said company upon said contract (page 5374 of Proceedings) by order of the Board of Trustees and the Chief Engineer of the District has certified to the proper completion of the contract as above mentioned.

The Committee advises that in its opinion it is expedient to require the execution of a smaller bond to be given in lieu of the original bond on said contract.

The Committee, therefore, recommends that the surety on the original bond be released from further liability thereon, the contractor to remain liable thereon, provided said contractor shall furnish a new bond in the penal sum of two thousand dollars ($2,000) with surety thereon satisfactory to the Board of Trustees.

Respectfully submitted,

J. P. MALLETTE,
JOS. C. BRADEN,
B. A. ECKHART,
THOS. KELLY,
Z. R. CARTER,

Joint Committee on Judiciary and Finance.

RELEASE OF SURETIES ON BOND ON CONTRACT FOR SUBSTRUCTURE OF C., M. & N. BRIDGE NEAR EAST END OF SECTION N, AND FOR SUBSTRUCTUE OF A., T. & S. F. BRIDGE AT WEST END OF SECTION N.

Mr. Mallette, Chairman, presented, and the Clerk read, a report from the Committee on Judiciary with reference to, and accompanied by a communication from Messrs. McArthur Bros. Company, in reference to the releases of sureties on contract for substructure of C., M. & N. Bridge near east end of Section N, and substructure of A., T. & S. F. Bridge near west end of Section N, the report being also accompanied by forms of release from sureties on said bonds, and recommending that the sureties upon each of said bonds be released, the contractors to remain liable thereon, provided said contractors shall furnish bonds in lieu thereof in the penal sum of $1,000, with surety thereon satisfactory to the Board.

Mr. Mallette, seconded by Mr. Kelly, moved that the report be adopted and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Kelly, Mallette, Smyth and Wenter—eight. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, January 16, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Your Committee on Judiciary desires herewith to make report that the Committee has received a communication from McArthur Bros. Company and Winston & Company requesting that the sureties on the bonds executed by said contractors upon contracts for the construction of the Chicago, Madison and Northern Railroad Bridge substructure near east end of Section "N" and for the Atchison, Topeka and Santa Fe Railway Bridge substructure near west end, be released from further liability thereon.

The Committee desires to advise your Honorable Body that final payment has been made to said contractors upon the work as above mentioned and that the Chief Engineer of the District has certified to the proper completion of said work (see pages 5353 and 5390 of Proceedings).

The Committee believes, however, that it is advisable in order to properly protect the interests of the District in the premises to require the execution of a bond of smaller penalty to be executed by said Contractors in lieu of the original bonds.

The Committee therefore recommends that the sureties upon each of said bonds be released, the contractors to remain

liable thereon, provided said contractors shall furnish bonds in lieu thereof, in the penal sum of one thousand ($1,000) dollars with surety thereon satisfactory to the Board of Trustees.

Respectfully submitted,

(Signed) J. P. MALLETTE,
Chairman.

THOMAS KELLY,

B. A. ECKHART,

J. C. BRADEN,

Committee on Judiciary."

ORDER IN REFERENCE TO WARRANTS AGAINST THE TAX LEVY FOR 1898 AND SUBSEQUENT YEARS.

Mr. Carter presented, and seconded by Mr. Wenter, moved the adoption of the following

ORDER:

Ordered, That the Clerk of this District be, and he is herby, authorized to draw warrants in the usual form against the tax levy for the year 1898 and subsequent years, until otherwise further ordered, for the payment of the ordinary and necessary expenses of the District, as approved by the Board from time to time; provided, however, that in cases where the amount due and owing to creditors of the District is in a sum less than fifty dollars each, the Clerk shall draw a tax warrant in the aggregate amount owing said sundry creditors, payable to the order of F. M. Blount, Treasurer; and,

Ordered, Further, That when the said tax levy warrant or warrants, aforesaid, shall have been placed in the custody of the said F. M. Blount, Treasurer, the Clerk shall thereupon draw regular warrants, payable to the order of the person, persons, co partnership or corporation, in the amount or amounts due and owing them. and by the Board of Trustees approved and ordered paid, against the account of the said F. M. Blount, Treasurer.

On roll-call on the motion for the adoption of the order, the vote stood: Yeas--Messrs. Boldenweck, Braden, Carter, Kelly, Mallette, Smyth and Wenter—seven. Nays--none.

Upon this result the President declared the motion carried.

ADJOURNMENT.

On motion of Mr. Smyth, seconded by Mr. Braden, the Board then adjourned.

Joseph F. Haas
Clerk.

PROCEEDINGS

—OF THE—

BOARD OF TRUSTEES

—OF THE—

SANITARY DISTRICT OF CHICAGO.

JANUARY 21 AND 25, 1899.

OFFICIAL RECORD.

Published by authority of the Board of Trustees of the Sanitary District of Chicago.

REGULAR MEETING.

The four hundred and twenty-third regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Saturday, January 21, 1899, at 1:30 o'clock P. M.

On roll-call Messrs. Boldenweck, Wen- : and Kelly—three members, were esent.

At 2 o'clock P. M., no other members aving arrived, the Board then ad- urned.

Joseph F. Haas

Clerk.

OFFICIAL RECORD.

Published by authority of the Board of Trustees of the Sanitary District of Chicago.

REGULAR MEETING.

The four hundred and twenty-fourth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Wednesday, January 25, 1899, at 2 o'clock P. M.

On roll-call Messrs. Boldenweck, Braden, Carter, Eckhart, Kelly and Wenter —six members, were present, Messrs. Jones and Mallette arriving subsequently.

President Boldenweck then called the Board to order.

MINUTES.

The minutes of the regular meetings, held January 7, 11, 14, and 18, 1899, were approved as printed, on motion of Mr. Kelly, seconded by Mr. Braden.

*VOUCHERS.

The Clerk presented the following vouchers:

CONSTRUCTION ACCOUNT.

Halvorson, Richards & Co. (Sec. E., Jan. 16, 1899)	$ 3,325 00	
Gahan & Byrne (Sec. H Dam)	568 40	
McArthur Bros. Co. and Winston & Co. (Kedzie Avenue C., M. & N. Bridge)	716 41	
Hayes Bros. (Wire Mills Road Bridge)	1,312 50	
Lydon & Drews Co. (Removing wreck in Chicago River)	400 00	
Total		$ 6,322 31

*To be paid by warrants with interest coupons attached, drawn against the Tax Levy for 1898.

Mr. Carter, seconded by Mr. Wenter, moved that the vouchers, as read and shown above, be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Kelly, and Wenter—six. Nays—none.

Upon this result the President declared the motion carried.

REQUISITION.

The Clerk presented the following requisition:

No. 1,096, Clerical Department, (stationery) $9 50

Mr. Carter, seconded by Mr. Eckhart, moved that Requisition No. 1,096, as read and shown above, be allowed.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Kelly, and Wenter—six. Nays—none.

Upon this result, the President declared the motion carried.

WEEKLY REPORT ON EMPLOYES.

The Clerk presented a report, in accordance with the rules, showing the number of persons in the employ of the District for the week ending January 21, 1899, which was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, January 25, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the week ending January 21, 1899, as the same have been reported to me:

Engineering department	78
Maintenance account	8
Clerical department	5
Law department	8
Treasury department	1
Police department	29
Telephone operator	1
Total employes	130

Respectfully submitted,

(Signed) JOSEPH F. HAAS,

Clerk."

REPORT IN REFERENCE TO EXECUTION OF SUPPLEMENTAL AGREEMENT WITH "SANTA FE SYSTEM" FOR CROSSING RIGHT OF WAY.

The Clerk presented and read a report, transmitting a supplemental agreement with the companies of the Santa Fe system, in reference to the various matters connected with the crossing of right of way of said system, and making certain changes in regard to the original contract entered into with the railroads aforesaid, rendered necessary by the amendment to the Sanitary District law; the report setting forth that the said agreement has been duly executed by the said companies, and also by the President and Clerk, as authorized by the Board at the meeting held October 12, 1898 (page 5193 of the Proceedings), and a duplicate copy of the same delivered to said companies, and therefore recommending that the said supplemental agreement be printed and placed on file.

Mr. Braden, seconded by Mr. Kelly, moved that the report be received, and with accompanying agreement printed and placed on file.

The motion prevailed unanimously and it was so ordered.

The following is

THE REPORT:

"CHICAGO, January 21, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I transmit herewith a supplemental agreement dated October 12, 1898, between the Sanitary District of Chicago and the Atchison, Topeka & Santa Fe Railroad Company in Chicago, the Chicago, Santa Fe & California Railway Company and the Atchison, Topeka & Santa Fe Railway Company in reference to matters connected with the crossing of the right of way and making certain changes in regard to the original contract entered into with the railroads aforesaid; the said supplemental agreement having been duly executed by the said companies and also by your President and Clerk, as authorized by your Honorable Body at the meeting held October 12, 1898 (page 5193 of the Proceedings), and a duplicate copy of the same, duly executed, delivered to said companies, and recommend that the said supplemental agreement be printed and placed on file.

Respectfully submitted,

JOSEPH F. HAAS,

Clerk."

The following is

THE AGREEMENT:

"THIS SUPPLEMENTAL AGREEMENT, Made this 12th day of October, 1898, between the Sanitary District of Chicago, hereinafter called the Sanitary District, party of the first part, the Atchison, Topeka and Santa Fe Railroad Company in Chicago, hereinafter called the Atchison Company, party of the second part, the Chicago, Santa Fe and California Railway Company, hereinafter called the California Company, party of the third part, and the Atchison, Topeka and Santa Fe Railway Company, hereinafter called the Kansas Company, party of the fourth part,

Witnesseth, That:

WHEREAS, Heretofore, by agreement dated the 25th day of May, 1896, between the parties hereto, and executed by them, certain provisions were made with reference to the construction of the Drainage Canal of the first party upon and over the property of the parties of the second and third parts, and for compensation and the construction of bridges, as well as other matters in said agreement recited; and,

WHEREAS, The parties to said agreement wish to modify the same in certain respects; and,

WHEREAS, The Sanitary District law was amended by the Legislature of the State of Illinois by an Act approved May 13th, 1897, which went into effect July 1st, 1897, providing that all bridges erected by said District should be of a type so that said bridges might be operated as movable bridges seven years from and after the time when the water shall be turned into the Main Channel of said District, pursuant to law;

It is therefore mutually covenanted and agreed by and between the parties hereto as follows:

The provisions of said agreement, dated the 25th day of May, 1896, as aforesaid, shall be extended to September 1st 1899, except as herein otherwise provided.

That fixed spans may be designed so as to admit of being changed into movable spans as herein provided, and said Sanitary District shall have the right and is hereby granted the right to construct such fixed spans, so designed as to admit of being changed into movable spans, provided said spans or bridges across its Main Channel shall be constructed at the exclusive cost and expense of said Sanitary District, and shall, as to design, quality of material and excellence of workmanship be as approved in writing by the Chief Engineer of the Kansas Company or its successors or assigns; and provided, further, that at the time and as a previous condition to the actual operation of such bridge or bridges as draw or movable bridges or as draw or movable structures, the Sanitary District shall also, at its own cost and expense, construct a system of interlocking switches to insure the safe and proper operation of trains of the railway company across said bridges, in accordance with the plans to be submitted and approved by the Chief Engineer, at the time being, of the Kansas Company, its successors or assigns; and provided, further, that in all cases where the center pier of any draw or movable bridge constructed by said Sanitary District is within the channel of said Drainage Canal,

before said bridge shall be operated as a movable or draw bridge, a suitable protection pier shall be constructed of piles and frame work at the cost and expense of the Sanitary District, in accordance with plans and specifications to be approved by the Chief Engineer, at the time being, of the Kansas Company, its successors or assigns, and also be subject to the approval of the proper officers of the State of Illinois or of the United States of America, should either of the same at any time hereafter acquire or assume jurisdiction over said Channel.

That Section 2 of Article IV of said agreement, dated May 25th, 1896, providing for arbitration, shall be amended in that and to the extent that the following provision shall be substituted in lieu thereof, to-wit:

In case at any time the Sanitary District shall elect to construct the fixed spans so designed as to admit of being changed into movable spans as aforesaid, or shall elect to construct draw or movable bridges, under the provisions of Section 1, Article IV. of said agreement, the Sanitary District for each bridge which it shall so elect to construct shall pay to the railway company owning the line upon which said bridge may be constructed the sums of money provided for in Sections fifteen (15), sixteen (16), seventeen (17) and eighteen (18) of Article I of this contract (being the contract dated May 25th, 1896), which sums aforesaid shall be paid on or before September 1st, 1899, and in addition thereto, as compensation for the operation of the draw or movable bridge, when such fixed spans shall be changed, altered and operated as such, or when draw or movable bridges shall be constructed as aforesaid, and for extra depreciation and wearing out of the same, and for assuming liability of accident thereto, a further sum in cash to be paid before the said bridge shall be operated as a draw or movable bridge, and to be determined as follows:

(a) The annual depreciation and wearing out of the superstructure of the bridges, and for increased liability to accident, shall be estimated at the sum of one-half of one per cent (½%) of the total cost of the iron and steel in the trusses, floor and bracing of said structure erected in place, exclusive of the rotating machinery, circular tracks, wheels, steel facing of drum, racks, pinions and shafting, boilers, engines and all fixtures and appurtenances belonging thereto, the drum to be classed as a part of the truss system.

(b) The annual depreciation and maintenance and liability to accident of the entire rotating machinery, including circular tracks, wheels, steel facing of drum, racks, pinions, shafting, boilers and engines, and the wedge shoes of end supports, and all attachments and appurtenances thereto, shall be estimated at the sum of seven and one-half per cent (7½%) of the entire cost of the same in place.

(c) The annual depreciation and maintenance of pile and frame protection piers, and for liability of accident to same, shall be estimated at the sum of twelve and one-half per cent (12½%) of the entire cost of said superstructure.

(d) The annual compensation for operating said draw spans or movable bridges, including wages of engineers, towermen, lampmen and all others employed in connection with operating and maintaining the bridges and interlocking plants connected therewith, also for fuel, oil, waste and all other supplies and materials, and including the maintenance and depreciation of said interlocking plants, shall be estimated at the sum of four thousand, three hundred dollars ($4,300.00) for each of said draw or movable bridges.

The aggregate of the foregoing additional amounts or compensation shall be ascertained and verified by the Chief Engineer of the Sanitary District and the Chief Engineer of the Kansas Company in advance of and before changing or converting any of said bridges from fixed spans to draw or movable bridges, or before constructing any draw or movable bridge provided for in Section I of Article IV of said agreement, and twenty (20) times the sum so determined shall be paid by the Sanitary District to the railway company owning the line upon which such bridge or bridges may be constructed before any such bridge or bridges shall be operated as draw or movable structures or bridges.

Save as herein specifically modified, the original contract dated May 25th, 1896, above referred to, between the parties hereto shall be and remain in full force and effect.

In Witness Whereof, The party of the first part has caused these presents and a duplicate thereof to be signed in its behalf by the President of its Board and its seal to be thereto attached, and the parties of the second, third

and fourth parts have caused these presents and a duplicate thereof to be signed by their respective Presidents and their corporate seals to be affixed thereto by their respective Secretaries and attested by their respective Secretaries, on the day and year first above written.

The Sanitary District of Chicago,

By WILLIAM BOLDENWECK,

President of the Board.

Attest: [SEAL]

JAS. REDDICK,

Clerk.

Atchison, Topeka and Santa Fe Railroad Company in Chicago.

By E. P. RIPLEY,

Its President.

Attest: [SEAL]

D. L. GALLUP,

Secretary.

Chicago, Santa Fe and California Railway Company.

By E. P. RIPLEY,

Its President.

Attest: [SEAL]

D. L. GALLUP,

Secretary.

The Atchison, Topeka and Santa Fe Railway Company.

By E. P. RIPLEY,

Its President.

Attest: [SEAL]

E. WILDER,

Secretary."

REPORT IN REFERENCE TO EXECUTION OF AGREEMENT WITH CHICAGO, SANTA FE AND CALIFORNIA RAILWAY COMPANY FOR EXCHANGE OF CERTAIN LANDS.

The Clerk presented and read a report, transmitting the agreement with the Chicago, Santa Fe and California Railway Company, for exchange of certain lands, the report setting forth that the same has been duly executed by the said company, and also by the President and Clerk, as authorized by the Board at the meeting held November 23, 1898 (page 5273 of the Proceedings), and a duplicate copy of the same, duly executed, delivered to said company, and therefore recommending that said agreement be printed and placed on file.

By unanimous consent, the report was ordered received, and with accompanying agreement, printed and placed on file.

The following is

THE REPORT:

"CHICAGO, January 21, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN — I transmit herewith the agreement dated November 30, 1898, between the Sanitary District of Chicago and the Chicago, Santa Fe & California Railway Company for exchange of certain lands owned by the district for certain lands owned by said railway company, the said agreement having been duly executed by the said company and also by your President and Clerk, as authorized by your Honorable Body at the meeting held November 23, 1898 (page 5273 of the Proceedings), and a duplicate copy of the same, duly executed, delivered to said company, and I therefore recommend that the said agreement be printed and placed on file.

Respectfully submitted,

(Signed) JOSEPH F. HAAS,

Clerk."

The following is

THE AGREEMENT:

"THIS AGREEMENT, Made and entered into this 30th day of November, 1898, by and between the Sanitary District of Chicago, party of the first part, and the Chicago, Santa Fe and California Railway Company, party of the second part,

Witnesseth, That,

WHEREAS, The Chicago, Santa Fe and California Railway Company owns certain lands in the southwest quarter (¼) of Section thirty-four (34), Township thirty-six (36) North, Range ten (10), East of the Third Principal Meridian, also certain lands in Sections three (3) and four (4), Township thirty-five (35) North, Range ten (10), East of the Third Principal Meridian, all in Will County, Illinois; and,

WHEREAS, The Sanitary District of Chicago requires for its uses a tract or portion of the lands so owned by said railway company, aggregating seventy-seven (77) acres, more or less, and particularly described as follows, to-wit:

All that part of the new right of way of the Chicago, Santa Fe and California Railway lying in the southwest quarter (¼) of Section thirty-four (34), Township thirty-six (36) North, Range ten (10), east of the Third Principal Meridian.

Also all that part of Lots five (5), six (6) and seven (7), Assessors' Subdivision of Section three (3), Township thirty-five (35) North, Range ten (10), East of the Third Principal Meridian, lying east of the westerly right of way line of the new right of way of the Chicago, Santa Fe and California Railway, excepting therefrom so much as lies east of a line parallel to and three hundred (300) feet distant in a westerly direction, from the westerly reserve line of the Illinois and Michigan Canal measured at right angles.

Also all that part of Lot seven (7), Assessors' Subdivision of Section four (4), Township thirty-five (35) North, Range ten (10), East of the Third Principal Meridian, lying east of the westerly right of way of the new right of way of the Chicago, Santa Fe and California Railway.

Also the east one hundred (100) feet of Lot eight (8), Assessors' Subdivision of Section four (4), Township thirty-five (35) North, Range ten (10), East of the Third Principal Meridian.

Also all that part of Lot nine (9), Assessors' Subdivision of Section four (4), Township thirty-five (35) North, Range ten (10), East of the Third Principal Meridian, lying east of the westerly right of way line of the new right of way of the Chicago, Santa Fe & California Railway.

Also all that part of the east part of Lot ten (10), Assessors' Subdivision of Section four (4), Township thirty-five (35) North, Range ten (10), East of the Third Principal Meridian, lying west of a line described as follows:

Beginning at the intersection of the north line of Section three (3), Township thirty-five (35) North, Range ten (10), East of the Third Principal Meridian, and a line parallel to and three hundred (300) feet distant from the westerly reserve line of the Illinois and Michigan Canal, measured at right angles; thence running southwesterly along said parallel line to a point two hundred and eighty-seven (287) feet south of the intersection of said parallel line with the west line of said Section three (3) to a point of curve; thence running on a curve to the left, said curve having a radius of one thousand two hundred seventy-four (1,274) feet, to its intersection with the westerly reserve line of the Illinois and Michigan Canal.

Also Lots one (1), two (2), three (3), four (4), five (5) and six (6) of Levy Doty's Subdivisions of part of south half (½) of south half (½) of Section four (4), Township thirty-five (35) North, Range ten (10), East of the Third Principal Meridian; said above described lands are more particularly shown on Exhibit "A" and colored red thereon.

WHEREAS, The said railway company desires for its uses certain lands hereinafter described belonging to the Sanitary District of Chicago, as well as to acquire other rights herein stated:

It is therefore mutually covenanted and agreed by and between the said parties as follows:

1. The party of the second part shall, within six months after the execution of this agreement, convey to the party of the first part by good and sufficient deed, with covenants of general warranty and with a release from the Boston Safe Deposit and Trust Company as trustee under a certain mortgage made by the party of the second part, dated January 1st, 1887, the tracts of land hereinbefore particularly described as being required for the uses of the said Sanitary District.

2. The party of the first part shall, at the same time and upon the delivery of the deed or conveyance of the party of the second part hereinbefore referred to, deliver to the party of the second part a good and sufficient deed of conveyance with covenants of general warranty and upon the consideration of the said conveyance by the said party of the second part hereinbefore referred to, conveying to said party of the second part twenty-three (23) acres, more or less, situated in the southwest quarter (¼) of Section thirty-four (34), Township thirty-six (36) North, Range ten (10) East of the Third Principal Meridian, and in the west half (½) of Section three (3), Township thirty-five (35) North, Range ten (10) East of the Third Principal Meridian in Will County, Illinois, described as follows, to-wit:

Beginning at the intersection of the southerly right of way line of the Elgin,

Joliet and Eastern Railway and the westerly right of way line of the present location of the Chicago, Santa Fe and California Railway; thence running southeasterly along said westerly right of way line to its intersection with the westerly reserve line of the Illinois and Michigan Canal; thence running southwesterly along said westerly reserve line to its intersection with the center thread of the Main Channel of the Desplaines River; thence running northerly along said center thread to its intersection with a line parallel to and three hundred (300) feet distant in a westerly direction from the westerly reserve line of the Illinois & Michigan Canal, measured at right angles; thence running northeasterly along said parallel line to its intersection with the center thread of the West Channel of the Desplaines River; thence running northeasterly along said center thread of said West Channel to its junction with the center thread of the East Channel of the Desplaines River; thence running northwesterly along the center thread of the Desplaines River to its intersection with a line parallel to and three hundred (300) feet distant in a westerly direction from the westerly reserve line of the Illinois and Michigan Canal; thence running northeasterly along said parallel line to its intersection with the north line of Section three (3), Township thirty-five (35) North, Range ten (10) east of the Third Principal Meridian; thence running northerly to the point of beginning, said tract of land containing twenty-three (23) acres more or less. The above described property is shown on Exhibit "A" and colored yellow thereon.

3. Said party of the first part shall, upon the execution of this agreement and before the delivery of the conveyances herein provided for, have the right to enter upon the lands to be conveyed, as hereinbefore provided, to it by the said party of the second part, and to use occupy and enjoy the same and proceed with the construc- on of its work thereon, and said party of ie second part shall have the right to enter ion, use, occupy and enjoy the premises in s agreement hereinbefore described to be nveyed to it by the said party of the first art and make such improvements thereon as may desire.

4. The party of the first part shall cause, ith all convenient dispatch, the land so to e conveyed by it as aforesaid, as well as all the lands retained by the said party of the second part in Sections three (3) and four (4), Township thirty-five (35) North, Range ten (10), east of the Third Principal Meridian, in said Will County, which said retained lands are colored brown on said Exhibit "A" hereto attached, to be filled with material taken from the Channel which the said party of the first part is about to excavate or cause to be excavated, so far as the said excavation may go towards making said fill and no more, to the height shown upon the profile forming a part of the map showing the properties covered by this contract and marked Exhibit "A," hereto attached.

5. The said party of the first part shall and hereby does confirm and recognize the validity of a certain contract entered into between said Chicago, Santa Fe and California Railway Company and the State Board of Canal Commissioners for the Illinois and Michigan Canal, by which said Chicago, Santa Fe and California Railway Company is permitted to cross the basin of said Illinois and Michigan Canal in the City of Joliet, near the intersections of Sections three (3), four (4), nine (9) and ten (10), Township thirty-five (35) North, Range ten (10) East of the Third Principal Meridian, and more particularly shown on Exhibit "B," hereto attached, said Exhibit "B" being attached to and forming a part of this agreement; and,

WHEREAS, Said party of the first part contemplates the deepening of the canal basin where said basin will be crossed by the bridge of the Chicago, Santa Fe and California Railway Company, near the intersections of Sections three (3), four (4), nine (9 and ten (10), aforesaid; and,

It is therefore further mutually understood and agreed that said party of the second part, or the Atchison, Topeka and Santa Fe Railway Company for it, shall have and is hereby given the right to enter upon said Channel when the same is drained, or the water pumped out of the coffer dams therein by said party of the first part or contractors under it, if the same is so drained or pumped out, but said party of the first part is not bound thereby to drain or pump out said Channel, and said party of the second part, or said The Atchison, Topeka and Santa Fe Railway Company for it, may thereupon place and construct therein or thereon the necessary piers and abutments for said bridges to be constructed by the party of the second part; provided, however,

that the work of placing and constructing said piers and abutments shall be so carried on as not to unnecessarily interfere with the work of deepening said channel and provided the same shall be done under the direction of the Chief Engineer of the party of the first part.

This Agreement, and all the provisions thereof, shall be binding upon and shall inure in favor of and may be enforced in the name of the successors and assigns of the respective parties hereto.

In Witness Whereof, The parties hereto have caused these presents and a duplicate thereof to be signed by their respective Presidents and their respective corporate seals to be affixed and to be attested by the Clerk of the first party and the Secretary of the second party, the day and year first above written.

Sanitary District of Chicago.

(Signed) By WILLIAM BOLDENWECK,
President.

Attest: [SEAL]

JAS. REDDICK,
Clerk.

Chicago, Santa Fe and California Ry. Co.,
By E. P. RIPLEY,
President.

Attest: [SEAL]

D. L. GALLUP,
Secretary."

PAYMENT ON ACCOUNT OF CLAIMS OF CONTRACTORS FOR SECTION 17 FOR LOSS AND DAMAGE.

The Clerk presented and read a report from the Chief Engineer, transmitting a copy of findings and award in adjustment and settlement of claims of Heldmaier & Neu, contractors for Section 17, for loss and damage to them, arising out of their contract with this District prior to date of settlement, and asking approval of the Board as to payment of $10,000 in accordance with said award.

Mr. Kelly, seconded by Mr. Braden, moved that the report be received, printed and placed on file, and the request of the Chief Engineer concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Kelly and Wenter—five. Nays—none. Excused and not voting, Mr. Eckhart—one.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, January 25, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I transmit herewith a copy of my findings and award, adjusting and settling in full, the claims of Heldmaier & Neu, contractors for Section No. 17, for loss and damage to them arising or growing out of their contract with this District, prior to the date of said settlement.

In accordance with the terms of said award, I transmit herewith a voucher calling for the first payment of $10,000.00, which I ask you to approve and order paid.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,
Chief Engineer.

(Two enclosures.)

REPORT IN REFERENCE TO RELEASE OF BOND ON CONTRACT FOR SUPERSTRUCTURE OF A., T. & S. F. BRIDGE NEAR EAST END OF SECTION G.

The Clerk presented and read a report from the Chief Engineer, transmitting a communication from the Carnegie Steel Company, Limited, contractors for the superstructure of the A., T. &. S. F. Ry. Bridge near east end of Section G, asking that their bond on contract for said work be released.

By unanimous consent the report and accompanying communication was referred to the Committee on Engineering.

The following is

THE REPORT:

"CHICAGO, January 25, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I transmit herewith a communication under date of January 10th from the Carnegie Steel Company, Limited, asking for a release of bond given for performance of contract for railroad bridge crossing our Main Channel on Section G. Final estimate has not yet been returned for this bridge,

which, however, is complete, barring some minor details.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,

Chief Engineer."

(Two enclosures.)

REPORT IN REFERENCE TO CLAIM OF E. S. REED FOR LIEN AGAINST DONALD FRASER.

On behalf of the Committee on Judiciary, Mr. Eckhart presented and the Clerk read a report from that Committee in reference to and accompanied by a communication from E. S. Reed making claim to the amount of $243.80 for lien against Donald Fraser, the report being accompanied by a report from the Attorney to the Committee in reference to the matter, and recommending that said claim be disallowed and that the communication and opinion of the Attorney accompanying it be placed on file with the Clerk.

Mr. Kelly, seconded by Mr. Eckhart, moved that the report be received and the recommendations contained therein concurred in.

The motion prevailed unanimously and it was so ordered.

The following is

THE REPORT:

"CHICAGO, January 23, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Your Committee on Judiciary desires herewith to report that in the matter of the claim presented by one E. S. Reed to the Clerk of the Sanitary District for lien upon the fund, if any, due or to become due Donald Fraser, an employe of the District, the Committee has caused the Attorney to vestigate the status of said claim and port to the Committee as to the legality ereof. That the Attorney of the Dis- ct has advised the Committee that in s opinion the claim specified in said mmunication to the Clerk is not a lien pon any of the funds in the hands of e Sanitary District which may be due d payable to the said Donald Fraser.

Your Committee, therefore, recom- nds that said claim be disallowed and that the communication herein above referred to, together with the opinion of the Attorney accompanying it, be placed on file with the Clerk of the District.

Respectfully submitted,

(Signed) B. A. ECKHART,

J. C. BRADEN,

THOMAS KELLY,

Committee on Judiciary."

REPORT IN REFERENCE TO REQUISITION NO. 591 FOR ENGINEERING DEPARTMENT.

On behalf of the Committee on Engineering, Mr. Jones presented and the Clerk read a report from that Committee with reference to and accompanied by requisition No. 591 for Engineering Department, amounting to $396.75, presented and referred to that Committee at the meeting held January 18, 1899 (page 5429 of the Proceedings), the report recommending that the said requisition be allowed.

Mr. Kelly, seconded by Mr. Carter, moved that the report be received and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly and Wenter—seven. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, January 23, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Your Committee on Engineering, to whom was referred at the meeting of the Board of Trustees of January 18, 1899 (page 5429 of the Proceedings), the requisition from the Chief Engineer of the District for quarterly supplies for the Engineering Department for the quarter ending March 31, 1899, in accordance with the schedule of said supplies appended to said requisition and transmitted therewith, desires herewith to report that the Committee has carefully examined said requisition of the list of supplies asked for by said depart-

ment and recommends that the same be allowed.

Respectfully submitted,

(Signed) JOS. C. BRADEN,
Z. R. CARTER,
B. A. ECKHART,
THOMAS KELLY,
FRANK WENTER,
WM. BOLDENWECK.
Committee on Engineering."

(One enclosure.)

REPORT IN REFERENCE TO AGREEMENT WITH THE JOLIET RAILROAD COMPANY FOR CROSSING THE DESPLAINES RIVER AT JEFFERSON STREET, JOLIET.

On behalf of the Committee on Engineering, Mr. Jones presented, and the Clerk read, a report from that Committee with reference to and accompanied by form of proposed agreement in duplicate with the Joliet Railroad Company in regard to the matter of affording a temporary crossing of the Desplaines River at Jefferson street, in the City of Joliet, for the tracks of said company, the report recommending that the President and Clerk be authorized and directed to execute said agreement in duplicate and deliver one of the said agreements to said company upon the execution by said company of the other agreement, the report also being accompanied by reports from the Attorney to the Committee in reference to said matter.

Mr. Kelly, seconded by Mr. Jones, moved that the report be received and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, and Wenter—seven. Nays—none.

Upon this result, the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, January 23, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Your Committee on Engineering has had under consideration, with the Joliet Railroad Company, the matter of affording a temporary crossing of the Desplaines River at Jefferson street, in the City of Joliet, for the tracks of the said railroad company during the time that the Sanitary District is constructing a new bridge at Jefferson street, and after a full consideration of the matter, has reached an agreement with said Joliet Railroad Company and has drafted a contract embodying the terms of the agreement which is hereto attached.

Your Committee, therefore, recommends that the President and Clerk be authorized and directed to execute for and on behalf of the Sanitary District of Chicago, in duplicate, the agreement in form hereto attached and deliver to said Joliet Railroad Company one of said agreements upon the execution by said Joliet Railroad Company of the other agreement by its proper officers.

Respectfully submitted,

(Signed) JOS. C. BRADEN,
Z. R. CARTER,
THOMAS KELLY,
B. A. ECKHART,
FRANK WENTER,
WM. BOLDENWECK,
Committee on Engineering."

(Four enclosures.)

COMMUNICATION IN REFERENCE TO RELEASE OF BOND OF GAHAN & BYRNE ON CONTRACT FOR SECTION F.

The Clerk presented a communication from Messrs. Gahan & Byrne in reference to the release of their bond on contract for Section F, which, on motion of Mr. Wenter, seconded by Mr. Kelly, was, by a unanimous vote, referred to the Committee on Finance with power to act.

DISCONTINUANCE OF SATURDAY BOARD MEETINGS.

Mr. Eckhart, seconded by Mr. Wenter, moved that the Saturday meetings of the Board of Trustees be discontinued.

The motion prevailed unanimously and it was so ordered.

CONSIDERATION OF RULE 1 OF RULES OF ORDER.

Mr. Jones, seconded by Mr. Braden, moved that the Committee on Rules be directed to take under consideration

Rule 1 of the Rules of Order and confer with all the members of the Board as to its best solution and report at the next meeting of the Board.

The motion prevailed unanimously and it was so ordered.

ADJOURNMENT.

On motion of Mr. Kelly, seconded by Mr. Carter, the Board then adjourned.

Joseph F. Haas

Clerk.

PROCEEDINGS

—OF THE—

BOARD OF TRUSTEES

—OF THE—

SANITARY DISTRICT OF CHICAGO.

FEBRUARY 1, 1899.

OFFICIAL RECORD

Published by authority of the Board of Trustees of the Sanitary District of Chicago.

REGULAR MEETING.

The four hundred and twenty-fifth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Wednesday, February 1, 1899, at 2 o'clock P. M.

On roll-call Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Mallette, and Wenter—seven members, were present.

President Boldenweck then called the Board to order.

VOUCHERS.

The Clerk presented the following vouchers:

PAY ROLLS.

gineering Department (Chief Engineer's Roll, January, 1899).....	$ 841 67	
gineering Department (Division of Construction Roll, January, 1899)	5,172 56	
gineering Department (Division of Drafting and Designing Roll, January, 1899)..	1,687 33	
gineering Department (Division of Records Roll, January, 1899)....	682 00	
		$ 8,383 56

Clerical Department (Clerk's Roll, January, 1899)		$ 1,033 33
Law Department (Attorney's Roll, January, 1899)	$ 1,433 34	
Law Department (Joliet Roll, January, 1899)	458 34	
		$ 1,891 68
Treasury Department (Treasurer's Roll, January, 1899)		166 66
General Account (General Roll, January' 1899)	$ 60 00	
General Account (Trustees' Roll, January, 1899)	2,333 33	
		$ 2,393 33
Police Department (Marshal's Roll, January, 1899)		2,470 76
Maintenance Account (Pumping Plant Roll, January, 1899)		585 00
Total		16,924 32

LAW DEPARTMENT.

John S. Runnels (services, General Counsel, January, 1899)		$ 416 67

CONSTRUCTION ACCOUNT.

Gahan & Byrne (Section G—Santa Fe roadbed)	$ 117 04	
Hayes Bros., et al. (Section N—drains)	1,141 91	
McMahon & Montgomery Company, et al. (Section O—Southwest Boulevard Bridge)	235 20	
Lydon & Drews Company (coffer dam)	2,610 10	
C. L. Strobel (Willow Springs Highway Bridge)	8,994 00	
The Carnegie Steel Company, Limited (Section 8—Santa Fe Bridge	45,711 00	
Chicago Crushed Stone Company (grading Kedzie Avenue)	302 94	
John Ries (Southwest Boulevard Bridge approach)	191 73	
		$59,303 92
Grand total		$76,644 91

*To be paid by warrants with interest coupons attached, drawn against the Tax Levy for 1898.

Mr. Carter, seconded by Mr. Wenter, moved that the vouchers, as read and shown above, be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Mallette and Wenter—seven. Nays—none.

Upon this result the President declared the motion carried.

MESSAGE IN REFERENCE TO ORGANIZATION OF SEWAGE DISTRICT.

The President presented and the Clerk read a message in reference to the contemplated organization of a sewage district within the Sanitary District north of Eighty-seventh and south of Seventy-fifth street, and recommending that steps be taken by the Board to confer with the authorities of the City of Chicago in reference to an outlet for the same.

Mr. Jones, seconded by Mr. Eckhart, moved that the message be referred to a special committee of three, to be appointed by the chairman, which shall conduct the conferences on behalf of the District and report back to the Board.

The motion prevailed unanimously and it was so ordered.

In accordance with the motion, the Chairman then appointed Messrs. Jones, Mallette and Braden as the members of the said committee.

The following is

THE MESSAGE:

"CHICAGO, Feb. 1, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—The attention of the members of your Honorable Body has without doubt been called to the agitation now taking place for the organization of a sewer district within the confines of the Sanitary District north of Eighty-seventh Street and south of Seventy-fifth Street, to take in all the unsewered portions of that region of the city and to find a common outlet through the intercepting sewer system and the Thirty-ninth Street conduit into the Drainage Canal.

The keen interest shown by the residents and taxpayers of the locality affected, who for seven years have annu-

ally paid their taxes for the construction of the Drainage Canal and the purification of the water supply and who are now threatened to be deprived of the early benefit of these objects, makes it incumbent upon us to exert every possible power at our legitimate and legal command to afford relief in the way of an outlet for the sewage district proposed in this territory. The City of Chicago has now perfected adequate intercepting sewer plans for the drainage of all territory in the southern portion of the city as far south as Seventy-third street, but the territory south of Seventy-fifth street and north of Eighty-seventh street not having been yet organized into a sewer district, no provision has been made for its relief. I think the members of your Honorable Body will agree with me that every effort should be exerted by us to secure, at the earliest possible date, full relief and benefit for that portion of the Sanitary District in the matter of drainage; and your Honorable Body having been equally emphatic in its position that no more sewers should be constructed to empty directly or indirectly into Lake Michigan —the source of our water supply—the only relief that can possibly be afforded the territory in this proposed sewage district is one which will give it an outlet through the intercepting sewer system from Seventy-third Street north to Thirty-ninth, and west from the Thirty-ninth Street conduit into the Chicago River and the Drainage Canal. To make this effective additional expense upon the Sanitary District may possibly be involved in the erection and maintenance of additional or enlarged pumping works and pumping machinery at Thirty-ninth Street conduit to lift the additional flow of sewage and water coming from the territory south of Seventy-fifth and north of Eighty-seventh and not contemplated in our present proposed arrangement with the City of Chicago.

I therefore recommend that immediate steps be taken by your Honorable Body to confer with the proper authorities of the City of Chicago to the end that some licable solution between the Sanitary strict, the City of Chicago, and the rritory affected by the proposed sewage istrict may be reached at an early date.

Respectfully submitted,

ligned) WILLIAM BOLDENWECK,
President."

REQUISITION.

The Clerk presented the following requisition:

No. 827, Law Department (electric lights, etc.)..... $15 75

Mr. Jones, seconded by Mr. Braden, moved that requisition No. 827, as read and shown above, be allowed.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden Carter, Eckhart, Jones, Mallette, and Wenter—seven. Nays—none.

Upon this result the President declared the motion carried.

WEEKLY REPORT ON EMPLOYES.

The Clerk presented a report, in accordance with the Rules, showing the number of persons in the employ of the District for the week ending January 28, 1899, which was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, February 1, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the week ending January 28, 1899, as the same have been reported to me:

Engineering department	77
Maintenance account	8
Clerical department	5
Law department	8
Treasury department	1
Police department	29
Telephone operator	1
Total employes	129

Respectfully submitted,

(Signed) JOSEPH F. HAAS,
Clerk."

REPORT IN REFERENCE TO EXECUTION OF SUPPLEMENTAL AGREEMENT WITH CHICAGO JUNCTION RAILWAY COMPANY.

The Clerk presented and read a report, transmitting the supplemental agreement, dated January 11, 1899, with the Chicago Junction Railway Company, successor to the Union Stock Yard and Transit Company, extending the time for the construction of a movable bridge until November 14, 1899, the report setting forth that the said supplemental agreement has been duly executed by the said Chicago Junction Railway Com-

pany, and also by the President and Clerk, as authorized by the Board at the meeting held January 11, 1899 (page 5407 of the Proceedings), and a duplicate copy of same delivered to said Chicago Junction Railway Company, and therefore recommending that the said supplemental agreement be printed and placed on file.

By unanimous consent, the report was ordered received, and with accompanying supplemental agreement printed and placed on file.

The following is

THE REPORT:

"CHICAGO, February 1, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I transmit herewith the supplemental agreement with the Chicago Junction Railway Company, successor to the Union Stock Yard & Transit Company of Chicago, dated January 11, 1899, extending the time for the construction of a movable bridge for one year from the date fixed in the supplemental agreement of April 17, 1897, with the Union Stock Yard & Transit Company or until November 14, 1899, the said supplemental agreement of January 11, 1899, having been duly executed by the Chicago Junction Railway Company and also by your President and Clerk, as authorized by your Honorable Body at the meeting held January 11, 1899 (page 5407 of the Proceedings), and a duplicate copy of same, duly executed, delivered to the said Chicago Junction Railway Company; and I therefore recommend that the said supplemental agreement of January 11, 1899, be printed and placed on file.

Respectfully submitted,

(Signed) JOSEPH F. HAAS,
Clerk."

(Accompanied by agreement.)

The following is

THE SUPPLEMENTAL AGREEMENT:

"CHICAGO, Ill., January 11, A. D. 1899.

By mutual agreement Section 2 of the above contract is hereby amended so that the time within which the work covered by the agreement Schedule A, and the supplemental agreement thereto, shall be and is hereby extended until November 14, 1899.

In Witness Whereof, The parties to the said supplemental agreement and said Schedule A, have caused this instrument to be executed by their duly authorized officers, and their corporate seals to be hereto attached, the day and year first above written.

CHICAGO JUNCTION RAILWAY COMPANY,
(Successor to the Union Stock Yard & Transit Company of Chicago.)
(Signed) By J. A. SPOOR,
President.

Attest: CHAS. D. MOYER, [SEAL]
Secretary.

SANITARY DISTRICT OF CHICAGO.
By WILLIAM BOLDENWECK,
President.

Attest: JOSEPH F. HAAS, [SEAL]
Clerk."

REPORT IN REFERENCE TO PARTIAL PAYMENT ON CONTRACT FOR SUPERSTRUCTURE OF C. T. T. RY. BRIDGE ACROSS DESPLAINES RIVER NEAR WEST END OF SECTION E.

The Clerk presented and read a report from the Chief Engineer in reference to the payment of $3,293.10 to the Wisconsin Bridge & Iron Company on their contract for the superstructure for the C. T. T. Ry. bridge across the Desplaines River near west end of Section E, the report asking that the Board order payment of said amount on account of material, this being 45 per cent of the contract price, all as set forth in the report.

Mr. Braden, seconded by Mr. Wenter, moved that the report be received and the request of the Chief Engineer concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Mallette and Wenter—six. Nays—none. Excused and not voting—Mr. Jones—one.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"February 1st, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—The Wisconsin Bridge & Iron Co. has been ready for some time

past to deliver the superstructure of the 105-foot span which they have undercontract from this District for the C. T. T. Ry. bridge across the Desplaines River. We are not ready to receive this material and they ask a payment on account. They have delivered to me a bill of sale for this material and I ask you to order payment of $3,293.10 on account of said material, this being 45 per cent. of the contract price.

Respectfully submitted,

ISHAM RANDOLPH,

Chief Engineer."

REPORT ON COMMUNICATION IN REFERENCE TO RELEASE OF BOND OF GAHAN & BYRNE ON CONTRACT FOR SECTION F.

Mr. Carter, Chairman, presented, and the Clerk read a report from the Committee on Finance in regard to the communication from Messrs. Gahan & Byrne as to the release of the sureties on their bond on contract for Section F, presented and referred to that Committee with power to act, at the meeting held Jan. 25, 1899. (page 5442 of the Proceedings) the report setting forth that the Committee has decided that the bonds of said contractors might be reduced to the sum of $5,000, without liability of subsequent loss or damage to the District and that the Committee has further determined that said contractors should be required to present to the Committee affidavits setting forth that no liability exists for claims of any kind or nature against said contractors arising out of claims of third persons for personal injuries or damages growing out of the execution of said contract.

Mr. Carter, seconded by Mr. Jones, moved that the report be received and concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Mallette and Wenter—seven. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, January 30, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Your Committee on Finance to whom was referred, with power to act, at the meeting of the Board of Trustees held on January 25, 1899 (page 442 of the Proceedings), the communication of Messrs. Gahan & Byrne, former contractors on Section F of the Main Channel, with reference to the release of the sureties on the bond of said contractors, desires herewith to report that the Committee, after careful investigation of the status of the work upon said section, and careful inquiry as to the matter of claims on file against said contractors on said section, has decided that the bonds of said contractors for the work upon said section might be reduced to the sum of five thousand ($5,000.00) dollars, without liability of subsequent loss or damage resulting to the District thereby.

The Committee has further determined, however, that in order to more completely protect the interests of the District in the premises, that the contractors on said section be required to present to the Committee individual affidavits, setting forth that no liability exists for any claims of whatsoever kind or nature against said contractors arising out of any claims by third persons for personal injuries or for damages against said contractors of any nature whatsoever arising out of the execution of said contract.

Respectfully submitted,

(Signed) Z. R. CARTER,

Chairman.

B. A. ECKHART,

FRANK WENTER,

ALEX. J. JONES,

Committee on Finance."

(Two enclosures.)

REPORT IN REFERENCE TO CLAIM OF EDWARD PAYETTE.

On behalf of the Committee on Engineering, Mr. Mallette presented, and the Clerk read, a report from that Committee in reference to a claim of Edward Payette, growing out of litigation heretofore pending, the report recommending that the District pay said Payette the sum of $200, and that the Attorney require from him a release of all claims growing out of said litigation.

Mr. Mallette, seconded by Mr. Eckhart, moved that the report be received and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Mallette and Wenter—seven. Nays—None.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, February 1, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Your Committee on Engineering has had under consideration the claim of Edward Payette for a claim growing out of litigation heretofore pending between him and the District.

After very careful consideration of the equities in the matter, your Committee respectfully recommends that the District pay to said Payette the sum of two hundred dollars, and that the Attorney require from him a release in full for all claims of whatsoever nature or character against the District growing out of said litigation.

Respectfully submitted,

(Signed) J. P. MALLETTE,
J. C. BRADEN,
Z. R. CARTER,
B. A. ECKHART,
FRANK WENTER,
ALEX. J. JONES,
WM. BOLDENWECK,
Committee on Engineering."

REPORT ON AMENDMENT TO RULES.

On behalf of the Committee on Rules, Mr. Jones presented a report in reference to the consideration of Rule 1 of the Rules of Order, the same having been referred to that Committee at the meeting held January 25, 1899 (page 5442 of the Proceedings), the report recommending the amendment of Rule 1 of the Rules of Order, and Rule 3 of the Rules, as set forth in the report.

By unanimous consent the report was ordered printed, and in accordance with the Rules consideration of the same was laid over for one week.

The following is

THE REPORT:

"CHICAGO, February 1, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN — Your Committee on Rules, to which was referred the consideration of Rule 1 of the Rules of Order (page 5442 of the Proceedings), beg leave to report that they have duly considered the same, and also Rule 3 of the Rules and Regulations of the Board of Trustees, and respectfully report and recommend as follows:

That Rule 1 of the Rules of Order be amended so that the same may read as follows:

Rule 1—All regular meetings of the Board shall begin promptly at two o'clock P. M., and all special meetings shall convene promptly at the hour provided in the call or order for said special meetings.

That Rule 3 of said Rules be amended so that the same may read as follows:

Rule 3 — Regular meetings of the Board of Trustees shall be held on Wednesday of each week, at two o'clock P. M., sharp; provided, that from May 1 to October 1, the regular meetings of the Board shall be held on the second and fourth Wednesday of each month at the same hour.

Respectfully submitted;

(Signed) WM. BOLDENWECK,
Chairman.
ALEX. J. JONES,
J. C. BRADEN,
J. P. MALLETTE,
Committee on Rules."

COMMUNICATION FROM JOHN T. ALLISON.

The Clerk presented and read a communication from John T. Allison in reference to the highway between the new river bridge and the Illinois and Michigan Canal bridge, which by unanimous consent was referred to the Committee on Engineering.

The following is

THE COMMUNICATION:

"CHICAGO, February 1, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I respectfully desire to call your attention to the fact that the highway between the new river bridge and the Illinois and Michigan Canal bridge is in a very bad condition. As soon as the frost comes out of the ground it will be impassable. In accordance with your agreement with the Village of Summit the Sanitary Dis-

trict should keep this road in good condition for travel. A great many of the people of Summit have requested me to call your attention to this matter.

Very respectfully,

(Signed.) JNO. T. ALLISON."

ADJOURNMENT.

On motion of Mr. Wenter, seconded by Mr. Braden, the Board then adjourned.

Joseph F. Haas

Clerk.

PROCEEDINGS

—OF THE—

BOARD OF TRUSTEES

—OF THE—

SANITARY DISTRICT OF CHICAGO.

FEBRUARY 8, 1899.

OFFICIAL RECORD.

Published by authority of the Board of Trustees of the Sanitary District of Chicago.

REGULAR MEETING.

The four hundred and twenty-sixth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Wednesday, February 8, 1899, at 2 o'clock P. M.

On roll-call Messrs. Boldenweck, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—eight members, were present, Mr. Braden arriving subsequently.

President Boldenweck then called the Board to order.

MINUTES.

The minutes of the regular meetings held January 21, 25 and February 1, 1899, were approved as printed, on motion of Mr. Kelly, seconded by Mr. Jones.

*VOUCHERS.

The Clerk presented the following vouchers:

ENGINEERING DEPARTMENT.

P. Little (carbon paper)	$ 10 00
estern Bank Note and Engraving Company (letter heads)	18 17
uffel & Esser Company (drafting supplies)	13 00
e Frederick Post Company (blue prints)	3 94
arson Bros. (blue prints)	7 07
e Caxton Company (blue prints)	2 20

Gutta Percha Rubber Company (mittens, etc.)	$ 4 75	
W. H. Salisbury & Co. (boots and gloves)	11 50	
H. Schultz & Co. (file boxes)	7 50	
Chicago Towel Supply Company (toweling, January, 1899)	7 90	
Samuel L. Hanks (ice, January, 1899)	11 50	
J. H. Alexander (rent, Lockport, January, 1899)	17 00	
Henry Gebhardt (vault fittings)	27 05	
Norton & Co. (coal)	13 00	
Halvorson, Richards & Co. (coal)	14 55	
Sibley Warehouse and Storage Company (storage to January 4, 1899)	30 00	
Isham Randolph (postage stamps)	40 00	
Wm. Trinkaus (expense)	38 64	
H. B. Alexander (expense)	40 88	
W. T. Keating (expense)	52 10	
Eugene Dietzgen Company (blue prints)	53 71	
W. M. Hughes (services, bridge engineer)	137 50	
W. M. Hughes (account plans for Belt Railway bridge)	650 00	
		$ 1,211 96

CLERICAL DEPARTMENT.

Samuel L. Hanks (ice, January, 1899)	$ 2 50	
The Chicago Towel Supply Company (toweling, January, 1899)	2 50	
White Rock Mineral Spring Company (water)	3 75	
A. P. Little (carbon paper)	4 00	
Thayer & Jackson Stationery Company (stationery)	12 60	
Western Bank Note and Engraving Company (letter heads)	20 58	
		$ 45 93

LAW DEPARTMENT.

Joliet Republican Printing Company (printing)	$ 7 00	
Jacobs, Coles & Co. (stationery)	9 25	
Western Bank Note and Engraving Company (letter heads)	11 25	
Chicago Job Book Bindery (binding briefs)	7 25	
James D. Cockcroft (law book)	6 00	
Frank Vander Bogart, Clerk (fees)	13 75	
Greene & Greene (court reporting)	3 00	
Josephine Bulkley (typewriting)	6 75	
Metropolitan Electrical Supply Company (desk lamps)	15 75	
A. J. Mathewson (consultation)	28 20	
D. W. Ackerman (expert witness fee)	25 00	
P. A. Hines (expert witness fee)	25 00	
Adolph Larson (expert witness fee)	35 00	
Chas. E. Cook (expert witness fee)	50 00	
William A. Bond (expert witness fee)	150 00	
Joseph Donnersberger (expert witness fee)	150 00	
George Birkhoff, Jr. (expert witness fee)	150 00	
William B. Ewing (expert witness fee)	150 00	
Chas. C. Gilbert (expense)	82 30	
		$ 925 50

LAND ACCOUNT.

John O'Connor (abstracts, etc.)		487 9

GENERAL ACCOUNT.

Henry Gebhardt (repairing desks)	$ 1 25	
Chicago Electric Company (buzzer repairs)	2 70	
The Chicago South Side Daily Sun (advertising proposals)	9 90	
The Inter Ocean (advertising proposals)	14 85	
The Chicago Democrat and Dispatch (advertising proposals)	19 80	
The Construction News Company (advertising proposals)	15 00	

American Contractor Publishing Company (advertising proposals)	$ 13 95	
The Engineering News Publishing Company (advertising proposals)	21 00	
The Engineering Record (advertising proposals)	20 80	
The Democratic Magazine Company (advertising proposals)	20 00	
Security Deposit Company (rent, February, 1899)	483 33	
Chicago Telephone Company (services)	491 70	
		$ 1,114 28

POLICE DEPARTMENT.

Mrs. A. Hartwig (laundry)	$ 5 00	
Bridget Lambert (laundry)	9 00	
H. J. Doran (expense)	5 70	
		$ 19 70

MAINTENANCE ACCOUNT.

Wm. O'Connell (sundries)	$ 6 19	
Canal Commissioners (blacksmithing)	6 40	
Chicago Engineer Supply Company (waste)	9 38	
Heggie Bros. (boiler repairs)	27 48	
Dearborn Drug and Chemical Works (boiler compound)	38 10	
H. B. Alexander (expense)	54 49	
Weaver Coal Company (coal)	749 15	
		$ 891 19

CONSTRUCTION ACCOUNT.

Mason, Hoge, King & Co. (Section 8, railroad embankment)	$ 567 00	
Heidmaier & Neu (Section 17, February 1, 1899)	20,685 87	
Gahan & Byrne (Section 18, February 1, 1899)	2,728 95	
Halvorson, Richards & Co. (Section E, February 1, 1899)	10,715 34	
Lydon & Drews Company (By-pass Chicago River)	5,190 50	
Lydon & Drews Company (dredging Chicago River)	6,224 31	
McArthur Bros. Co. and Winston & Co. (Summit-Lyons Road Bridge)	1,968 75	
Hayes Bros. (Wire Mills Road Bridge)	1,202 25	
C. L. Strobel (Summit Highway Bridge)	8,994 00	
C. L. Strobel (Romeo Highway Bridge)	8,994 00	
The A., T. & S. F. Ry. Co. (Section N, raising tracks)	10,285 91	
C. T. T. R. R. Co. (Section E, temporary bridge)	219 74	
C. T. T. R. R. Co. (Section E, permanent bridge)	1,850 31	
C. T. T. R. R. Co. (Section O—P. H. temporary bridge)	438 84	
Chicago Junction Ry. Co. (Section O—P. H. temporary bridge)	120 00	
Illinois Central R. R. Co., lessee (Section O—P. H. temporary bridge)	13 98	
George M. Huss (Section K, Belt Railway Bridge)	117 00	
A. T. Wilcox (Section O—P. H. temporary bridge)	30 31	
Hayes Bros. et al. (Section O—C., M. & N. Crossing, etc.)	3,192 63	
		$83,539 69
Grand total		$88,236 20

*To be paid by warrants, with interest coupons attached, drawn against the tax levy for 1898, as follows:

F. M. Blount, Treasurer (sundry persons, less than $50.00)	$ 804 28
struction Account, to contractors	83,539 69
others, direct to creditors	3,892 28
Total	$88,236 20

r. Carter, seconded by Mr. Wenter, red that the vouchers as read and rn above be approved and ordered .

n roll-call the vote stood: Yeas—Messrs. Boldenweck, Carter, Eckhart, Jones, (*except as to vouchers in favor of Wm. A. Bond, Joseph Donnersberger and George Birkhoff, Jr., for $150 each, on which he voted nay*) Kelly, Mallette Smyth and Wenter—eight (*except as above*

stated). Nays—none (*except as above stated.*)

Upon this result the President declared the motion carried.

REQUISITION.

The Clerk presented the following requisition.

No. 828, Law Department (copies of legislative bills, etc.) not to exceed. $50 00

Mr. Wenter, seconded by Mr. Mallette, moved that voucher No. 828, as read and shown above, be allowed.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—eight. Nays—none.

Upon this result the President declared the motion carried.

WEEKLY REPORT ON EMPLOYES.

The Clerk presented a report in accordance with the rules, showing the number of persons in the employ of the District for the week ending February 4, 1899, which was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, February 8, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I beg leave to report herewith the number of persons in the employ of the District for the week ending February 4, 1899, as the same have been reported to me:

Engineering department.....	77
Maintenance account.....	8
Clerical department.....	5
Law department.....	8
Treasury department.....	1
Police department.....	29
Telephone operator.....	1
Total employes.....	129

Respectfully submitted,

(Signed) JOSEPH F. HAAS,
Clerk."

MONTHLY REPORT FROM TREASURY DEPARTMENT.

The Clerk presented a report from the Treasury Department for the month of January, 1899, which was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT:

Receipts.

Balance on hand at date of last report.....		$ 491,842 95
From Sale of Bonds, Bond Account.....	$ 190,000 00	
From Premium on Bonds Sold, Interest and Premium Account.....	7,239 00	
From J. F. Haas, Clerk, Account F. W. C. Hayes, Attorney.....	94 83	
From J. F. Haas, Clerk, Account F. W. C. Hayes, Attorney.....	4,127 00	
From J. F. Haas, Clerk, Account Land Account.....	62 80	
From J. F. Haas, Clerk, Account Tax Lexy 1898 Account.....	678 31	
Total cash received for month.....		$ 202,201 94
		$ 694,044 89

Disbursements.

Clerical Department.....	$ 31 11	
Maintenance Account.....	33 51	
Engineering Department.....	283 21	
Law Department.....	550 47	
Land Account.....	45 50	
General Account.....	221 70	
Bond Account.....	430,000 00	
Interest and Premium Account.....	233,300 00	
Police Department.....	79 58	
Tax Warrant Levy, 1897, Paid.....	69 36	
Interest Account, interest paid on Tax Warrant.....	3 11	
Total cash disbursed.....		$ 664,617 50
Balance this date, in banks as per schedule endorsed hereon.....		29,427 39
		$694,044 89

Schedule.

Chicago National Bank	$ 3,488 61
National Bank of Illinois	25,938 78
Total	$ 29,427 39

CHICAGO, February 7, 1899. (Signed) F. M. BLOUNT, *Treasurer.*
By S. P. BLOUNT, *Asst. Treasurer.*

REPORT IN REFERENCE TO PAYMENT ON CONTRACT FOR SUBSTRUCTURE FOR LEMONT HIGHWAY BRIDGE ACROSS MAIN CHANNEL.

The Clerk presented a report from the Chief Engineer with reference to, and accompanied by, voucher for $1,171.44, in favor of Messrs. Sackley & Peterson, contractors for the substructure for the Lemont Highway Bridge across Main Channel, which, by unanimous consent, was referred to the Committee on Engineering.

REPORT IN REFERENCE TO COMPLETION OF CONTRACT FOR SUBSTRUCTURE FOR THE C. M. & N. BRIDGE ACROSS KEDZIE AVENUE, NEAR EAST END OF SECTION N.

The Clerk presented a report from the Chief Engineer, being final certificate in reference to the completion of the contract with Messrs. McArthur Bros. Company and Winston & Co. for the substructure for the C., M. & N. Bridge, near east end of Section N, which, by unanimous consent, was referred to the Committee on Engineering.

REPORT IN REFERENCE TO COMPLETION OF CONTRACT FOR SUPERSTRUCTURE FOR A., T. & S. F. BRIDGE NEAR EAST END OF SECTION G.

The Clerk presented a report from the Chief Engineer, being final certificate in reference to the completion of the contract with the Carnegie Steel Company, Ltd., for the superstructure of the A., T. & S. F. bridge near east end of Section G, which by unanimous consent was referred to the Committee on Engineering.

ANNUAL REPORT FROM TREASURY DEPARTMENT FOR 1898.

The Clerk presented the annual report from the Treasury Department for the year 1898, which was read and by unanimous consent was ordered printed and placed on file.

The following is

THE REPORT.

"Annual Report, Treasury Department, for year ending Dec. 31st, 1898:

Receipts.

Balance on hand Dec. 31st, 1897		$ 965,660 71
Received from Tax Levy, 1897	$3,263,160 54	
Received from Bonds sold	200,000 00	
Received from Premium on Bonds sold	7,320 00	
Received from Interest on Monthly Bank Balance	7,180 40	
Received from all other sources	10,045 12	
Total Receipts		$3,487,706 06
Grand total		$4,453,366 77

Disbursements.

id Tax Warrants issued against Tax Levy, 1896 and 1897	$2,608,570 45	
id Bonds	680,000 00	
id Interest on Bonds	552,150 00	
id Interest on Tax Warrants	101,988 09	
id Regular Warrants	18,815 28	
Total Disbursements		$3,961,523 82
Balance on hand Dec. 31st, 1898		491,812 95
Grand total		$4,453,366 77

F. M. BLOUNT, *Treasurer,*
CHICAGO, Jan. 10, 1899. By S. P. BLOUNT, *Assistant Treasurer.*

RECEIPTS.

1896.	From Tax Levy.	From Bonds.	From Premium on Bonds.	From Interest.	From All Other Sources.	Total.
January	.....	.....	.....	$561 39	.....	$ 561 39
February	$ 45,000 00	.....	.....	409 47	.....	45,409 47
March	363,522 76	.....	.....	549 48	$ 600 00	364,672 24
April	518,441 51	.....	.....	996 58	122 50	519,560 59
May	300,000 00	.....	.....	652 71	1,184 50	301,837 21
June	300,000 00	.....	.....	778 40	250 00	301,028 40
July	300,000 00	$200,000 00	$7,320 00	655 38	5,000 00	512,975 38
August	300,000 00	.....	.....	576 00	242 12	300,818 12
September	300,000 00	.....	.....	561 95	9 89	300,571 84
October	450,000 00	.....	.....	524 93	45 00	450,569 93
November	.....	.....	.....	175 26	2,065 61	2,240 87
December	386,196 27	.....	.....	738 85	525 50	387,460 62
Total	$3,263,160 54	$200,000 00	$7,320 00	$7,180 40	$10,045 12	$3,487,706 06
Balance Dec. 31, 1897						965,660 71
Grand total						$4,453,366 77

F. M. BLOUNT, *Treasurer*.

CHICAGO, January 10th, 1899. By S. P. BLOUNT, *Assistant Treasurer*."

DISBURSEMENTS.

1898.	Paid Tax Warrants.	Paid Bonds.	Paid Interest on Bonds.	Paid Interest on Tax Warrants.	Paid Regular Warrants.	Total.
January	.....	$430,000 00	$242,600 00	.....	$1,785 28	$675,385 28
February	$ 55 18	.....	.....	$ 1 74	1,159 75	1,216 67
March	218,812 53	.....	.....	11,617 04	2,262 74	232,692 31
April	505,283 10	.....	.....	22,577 73	1,756 29	529,617 12
May	396,363 27	.....	37,500 00	16,478 39	634 44	450,976 10
June	2,927 92	.....	.....	111 10	2,199 85	5,238 87
July	347,493 51	150,000 00	233,550 00	13,856 93	921 00	745,821 44
August	362,917 20	.....	.....	13,885 37	2,152 70	378,955 27
September	241,901 58	.....	.....	7,595 24	603 94	250,100 76
October	507,204 49	.....	.....	15,039 41	1,126 01	523,369 91
November	10,000 00	100,000 00	37,500 00	321 09	2,742 56	150,563 65
December	15,611 67	.....	.....	504 05	1,470 72	17,586 44
Total	$2,608,570 45	$680,000 00	$552,150 00	$101,988 09	$18,815 28	$3,961,523 82
Balance Dec. 31st, 1898						$491,842 95
Grand total						$4,453,366 77

F. M. BLOUNT, *Treasurer*.

CHICAGO, January 10th, 1899. By S. P. BLOUNT, *Assistant Treasurer*."

REPORT IN REFERENCE TO CLAIM OF CANAL COMMISSIONERS FOR ALLEGED DAMAGES AND TOLLS.

Mr. Mallette, Chairman, presented and the Clerk read a report from the Committee on Judiciary with reference to and accompanied by communication from the Chief Clerk and Paymaster of the Board of Canal Commissioners, enclosing bill and statement for alleged damages and tolls amounting to $212.25, presented and referred to that Committee at the meeting held December 14, 1898 (page 5345 of the Proceedings), the report recommending that the claim be allowed and that a voucher therefor be drawn in favor of the Treasurer of the Board of Canal Commissioners in payment thereof.

Mr. Mallette, seconded by Mr. Kelly, moved that the report be adopted and the recommendations contained therein concurred in.

On roll call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eck-

hart, Jones, Kelly, Mallette and Wenter—eight. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, February 6, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—The Committee on Judiciary, to whom was referred at the meeting of the Board held on December 14, 1898, (page 5345 of the Proceedings) the communication from the Chief Clerk and Paymaster of the Board of Canal Commissioners of the Illinois and Michigan Canal, enclosing bill and statement for alleged damages and tolls, amounting in the aggregate to two hundred twelve and twenty five hundredths ($212.25) dollars, desires herewith to report that the Committee has caused said claim to be investigated and after careful inquiry concerning said claim, recommends that the same be allowed and that a voucher therefor be drawn in favor of the Treasurer of said Board of Canal Commissioners in payment thereof.

Attached hereto is said communication and copy of claim and affidavit attached thereto, for filing.

Respectfully submitted,

(Signed) J. P. MALLETTE,
Chairman.
B. A. ECKHART,
THOMAS KELLY,
ALEX. J. JONES,
Committee on Judiciary."

Three enclosures.

COMMUNICATION IN REFERENCE TO PURCHASE OF POLICE STATION NEAR SAG BRIDGE.

The Clerk presented a communication from Timothy Carroll, making an offer of $100 for the building heretofore used as a police station, near Sag Bridge, Illinois, which, on motion of Mr. Smyth, seconded by Mr. Braden, was referred to the Committee on Finance by unanimous consent.

CLOSING OF DISTRICT OFFICES ON LINCOLN'S AND WASHINGTON'S BIRTHDAYS.

Mr. Braden, seconded by Mr. Wenter, moved that the offices of the Sanitary District of Chicago be ordered closed on Monday, February 13, and Wednesday, February 22, 1899, the same being celebrated as Lincoln's and Washington's birthdays, and being legal holidays.

The motion prevailed unanimously and it was so ordered.

ADJOURNMENT.

On motion of Mr. Smyth, seconded by Mr. Carter, the Board then adjourned.

Joseph F. Haas
Clerk.

PROCEEDINGS

—OF THE—

BOARD OF TRUSTEES

—OF THE—

SANITARY DISTRICT OF CHICAGO.

FEBRUARY 15, 1899.

OFFICIAL RECORD.

Published by authority of the Board of Trustees of the Sanitary District of Chicago.

REGULAR MEETING.

The four hundred and twenty-seventh regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Wednesday, February 15, 1899, at 2 o'clock P. M.

On roll-call Messrs. Carter, Eckhart, ies, Kelly, Mallette and Smyth—six mbers, were present.

In the absence of the President the erk then called the Board to order.

LECTION OF TEMPORARY CHAIRMAN.

Mr. Carter, seconded by Mr. Smyth, oved that James P. Mallette be elected nporary chairman.

ie motion prevailed unanimously, and Mr. Mallette was declared duly elected temporary chairman, and thereupon took the chair.

*VOUCHERS.

The Clerk presented the following vouchers:

ENGINEERING DEPARTMENT.

John R. Davis (test pits).....$274 00

GENERAL ACCOUNT.

John F. Higgins (printing Proceedings, January, 1899)..... ..... 126 99

Total.....$400 99

*To be paid by warrants, with interest coupons attached, drawn against the Tax Levy for 1898.

Mr. Smyth, seconded by Mr. Carter, moved that the vouchers, as read and shown above, be approved and ordered paid.

On roll-call the vote stood: Yeas—

Messrs. Carter, Eckhart, Kelly and Mallette—four. Nays—none.

Excused and not voting, Messrs. Jones and Smyth—two.

Upon this result the Chairman declared the motion lost, it being a matter involving the expenditure of money and requiring five affirmative votes to carry under the rules.

MOTION TO ADJOURN.

Mr. Smyth, seconded by Mr. Jones, moved that the Board do now adjourn until Thursday, February 16, 1899, at 2 o'clock P. M.

On roll-call the vote stood: Yeas—Messrs. Carter, Jones and Smyth—three. Nays—Messrs. Eckhart, Kelly and Mallette—three.

Upon this result the Chairman declared the motion lost.

WEEKLY REPORT ON EMPLOYES.

The Clerk presented a report in accordance with the rules, showing the number of persons in the employ of the District for the week ending February 11, 1899, which was read and by unanimous consent was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, February 15, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the week ending February 11, 1899, as the same have been reported to me:

Engineering department	76
Maintenance account	8
Clerical department	5
Law department	8
Treasury department	1
Police department	29
Telephone operator	1
Total employes	128

Respectfully submitted,

(Signed) JOSEPH F. HAAS,

Clerk."

MONTHLY REPORT FROM CLERICAL DEPARTMENT.

The Clerk presented a report from the Clerical Department for the month of January, 1899, which was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT:

CHICAGO, February 1, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I herewith submit the report of the Clerical Department for the month of January, 1899:

The total expenditure of the District for the month was $124,068.71, of which amount the sum of $123,996.24 was paid in 1898 Tax Levy Warrants and $72.47 by the Treasurer of the District for which no warrant was required. Of the 1898 Tax Levy Warrants issued, the sum of $678.31 was placed in the hands of the Treasurer and regular warrants drawn for this amount against the same, as per authority of the Board.

Of the amount paid by the Treasurer the sum of $69.36 was for 1897 tax warrants redeemed and $3.11 for interest on warrants redeemed.

The total amount expended on account of and charged to the Clerical Department during the month of January was $31.11 for general office expenses.

There are no outstanding liabilities against the Clerical Department, and the expenditure for the present month will be about $1,000.

The total amount expended for account of, and charged to, the General Account during the month of January was $3,737.33, divided as follows:

Rent for January	$ 483 33
Printing	378 12
Engraving bonds	331 75
Salaries	2,333 34
General expenses	210 79
Total	$ 3,737 33

The expenditure for the present month for the General Account will be about $3,000.00.

Of the total amount of 1896 tax levy warrants issued there is now outstanding the sum of $12,709.35; of the 1897 tax levy warrants issued there is now outstanding the sum of $16,473.42, and of the 1898 tax levy warrants issued to date the total amount is now outstanding and amounts to the sum of $1,659,082.71.

The following is a tabulated statement of total expenditures for the month of January, 1899.

ACCOUNT.	1898 Tax Levy Warrants.	Paid by Treasurer.	Total for Month.
Engineering Department	$ 1,964 22	.....	$ 1,964 22
Construction	109,815 91	.....	109,815 91
Clerical Department	31 11	.....	31 11
Law Department	6,760 87	.....	6,760 87
Land	1,000 00	.....	1,000 00
General	3,737 33	.....	3,737 33
Police Department	395 50	.....	395 50
Maintenance	291 30	.....	291 30
1897 Tax Warrants redeemed	.....	$ 69 36	69 36
Interest on Tax Warrants redeemed	.....	3 11	3 11
Totals	$123,996 24	$ 72 47	$124,068

Respectfully submitted,

(Signed) JOS. F. HAAS, *Clerk.*"

ANNUAL REPORT FROM CLERICAL DEPARTMENT.

The Clerk presented the annual report of the Clerical Department for the year 1898, which, on motion of Mr. Smyth, seconded by Mr. Carter, was by unanimous consent ordered printed and placed on file.

The following is

THE REPORT:

CHICAGO, January 2, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I have the honor to herewith submit the report of the Clerical Department for the year ending December 31, 1898.

The gross expenditures of the District for the year were $5,875,334.30, and aside from regular departmental expenses, among the more important items there was expended for construction work $1,289,919.52; for purchase of right of way, etc., $375,175.41; for redemption bonds, $680,000.00; for interest on bonds, 11,850.00; for taxes overpaid by South Town Collector and ordered refunded, 723.62; for redemption of warrants drawn against the tax levy of 1896, $46,129.01; for redemption of warrants drawn against the tax levy of 1897, $2,562,441.44; for maintenance of pumping plants, $23,221.84; for account of Messrs. Weir, McKechney & Co., repairing levees and moving their bridge conveyor, $502.55; and for account of Halvorson, Richards & Co., grading and removing spoil bank from permanent Summit Road, $3,258.64, while the sum of $2,400 has been charged to E. D. Smith & Co. on account of damages by overflow from Section 10, pending settlement of the equities involved.

The gross receipts of the District for the year were $5,608,472.26, among the principal items of which the sum of $3,263,160.54 was for taxes for the year 1897, etc.; $390,000 and a premium of $14,559.00 for sale of seventh and eighth issues of bonds; $7,180.40 for interest on bank balances; $388,440.73 for warrants drawn against the tax levy for 1897, and $1,535,086.47 for warrants drawn against the tax levy for 1898.

The expenses of the Clerical Department for the coming year will probably be about $12,000. and for the General Account about $45,000.

Of the total warrants heretofore issued against the tax levy for 1896, the sum of $12,709.35 is still outstanding; of those issued against the tax levy for 1897, the sum of $16,542.78 is still outstanding, and of those issued against the tax levy for 1898, the entire amount issued to date is still outstanding, and amounts to the sum of $1,535,086.47.

In the month of July, there was issued and delivered the seventh issue of bonds of the District in the sum of $200,000, dated July 1,

1898, and during the month of December the eighth issue, in the sum of $190,000, dated January 2, 1899, all payable in currency, and bearing interest at the rate of 3½ per cent per annum, payable semi-annually, in January and July, and the entire issues maturing in twenty years from date of issue. Both issues entire were sold to the Home Savings Bank of Chicago, at the rate of 103.66 for the seventh issue, and 103.81 for the eighth issue, these figures being the highest at which bonds of the District have ever been sold.

The total amount of bonds issued, from the organization of the District to date, is $13,990,000, and of this amount the sum of $2,950,000 has now been redeemed, leaving the sum of $11,040,000 still outstanding.

I present herewith detailed statements showing gross receipts and expenditures for the year 1898, and also from the organization of the District to December 31, 1898, together with a statement giving the actual net receipts and expenses of the District from date of organization to the close of 1898, and showing the total net expenses to December 31, 1898, to be $28,221,864.57.

Of the net receipts from date of organization, the sum of $11,040,000 was realized from bond issues outstanding; the sum of $15,653,368.40 from taxes collected; the sum of $12,709.35 from 1896 tax levy warrants outstanding; the sum of $16,542.78 from 1897 tax levy warrants outstanding; and the sum of $1,535,086.47 from 1898 tax levy warrants outstanding, making a total of net receipts of $28,257,707, and leaving a balance of cash on hand of $24,820.60, and the sum of $11,021.83 held as emergency funds in the hands of department officials.

As commenced last year, to the foregoing tables I have also added a bond statement showing in detail various data in reference to the eight different issues of District bonds, and giving the time and amounts of principal and interest maturing during the current year.

Attached hereto and made a part of this report are the tables referred to.

Respectfully submitted,

JOSEPH F. HAAS,
Clerk.

(Accompanied by tables.)

SUMMARY OF

GROSS RECEIPTS AND EXPENDITURES—SANITARY DISTRICT OF CHICAGO—FOR 1898.

Receipts.

Balance on hand January 1, 1898		$ 291,682 64
Construction Account (uncalled for wages)	$ 4 12	
Tax Account (taxes, 1897, etc.)	3,263,160 54	
Bond Account (sale of bonds)	390,000 00	
Interest and Premium Account (premium on bonds sold)	14,559 00	
Interest Account (interest on bank balances)	7,180 40	
General Account (rent of building, telephone service, etc.)	565 51	
Police Department (sale of livery stock)	250 00	
Weir, McKechney & Co. (uncalled for wages)	43 98	
Angus & Gindele (uncalled for wages)	123 45	
Tax Levy, 1897 (warrants drawn against)	388,440 73	
Tax Levy, 1898 (warrants drawn against)	1,535,086 47	
Emergency Fund Accounts (returned on account of Reddick and Hayes)	7,278 17	
Land Account (rent, sale of material and buildings, etc.)	1,779 89	
Total		$ 5,608,472
Grand total		$ 5,900,154 1

Expenditures.

Engineering Department	$ 119,506 94
Construction Account	1,239,919 52
Clerical Department	12,217 06
Treasury Department	2,103 90

Law Department	$ 72,463 17	
Land Account	375,175 41	
General Account	44,614 97	
Bond Account	680,000 00	
Interest and Premium Account	541,850 00	
Police Department	32,163 72	
Tax Account	8,723 62	
Interest Account	103,342 51	
Tax Levy, 1896	46,129 01	
Tax Levy, 1897	2,562,441 44	
Emergency Fund Accounts	6,300 00	
Maintenance Account	23,221 84	
Weir, McKechney & Co., Section F	502 55	
Halvorson, Richards & Co., Section E	2,258 64	
E. D. Smith & Co	2,400 00	
Total		$ 5,875,334 30
Balance on hand December 31, 1898		*24,820 60
Grand total		$ 5,900,154 90

*Adding to this cash balance of $24,820.60, the sum of $664,261.35, being the amount of outstanding regular warrants not yet presented to the Treasurer for payment, we have the sum of $689,081.95, from which we deduct the sum of $197,239.00, being the proceeds of the sale of the eighth issue of District bonds, and we have the sum of $491,842.95, which is the cash balance in the hands of the Treasurer December 31, 1898, as shown by his report for the month of December, 1898 (see page 5391 of the Proceedings), the above proceeds of the sale of the eighth issue of bonds having been credited by him in the receipts for January, 1899.

As an emergency fund there is now to the credit of Isham Randolph, Chief Engineer, the sum of $3,000.00; F. W. C. Hayes, Attorney, $4,221.83; Charles C. Gilbert, Attorney, $1,000.00; Seymour Jones, Principal Assistant Attorney, $300.00; and Joseph F. Haas, Clerk, $2,500.00, or a total of $11,021.83, which may be added to the available cash balance of the District.

SUMMARY OF

NET RECEIPTS AND EXPENSES - SANITARY DISTRICT OF CHICAGO—FROM FEBRUARY, 1890, TO DECEMBER 31, 1898.

Net Receipts.

Bond Account	$ 11,040,000 00	
Tax Account	15,653,368 40	
Tax Levy, 1896	12,709 35	
Tax Levy, 1897	16,542 78	
Tax Levy, 1898	1,535,086 47	
Total net receipts		$ 28,257,707 00

Net Expenses.

gineering Department	$ 1,222,092 82
istruction Account	20,099,284 67
rical Department	86,714 53
asury Department	14,460 21
Department	381,651 68
d Account	3,156,903 12
eral Account	408,426 97
erest Account	68,671 07
nd, Interest and Premium Account	2,431,237 42
e Department	232,487 27

Maintenance Account	$ 75,283 22	
Weir, McKechney & Co., Section F	22,118 14	
Angus & Gindele, Section E	12,854 79	
Streeter & Kenefick, Section E	5,020 02	
Halvorson, Richards & Co., Section E	2,258 64	
E. D. Smith & Co	2,400 00	
Total net expenses		$ 28,221,864 57
Emergency Funds		11,021 83
Cash balance on hand December 31, 1898		24,820 60
Grand total		$ 28,257,707 00

JOSEPH F. HAAS,
Clerk.

BOND STATEMENT

SHOWING TIME AND AMOUNTS OF PRINCIPAL AND INTEREST MATURING TO JANUARY 1, 1900.

	Date of Issue.	Amount of Issue.	Date of First Payment of Principal.	Amount Outstanding, Jan. 1, 1899.	Rate of Interest.	Amount of Interest due May 1, 1899.	Amount of Interest due July 1, 1899.	Amount of Principal due July 1, 1899.	Amount of Interest due Nov. 1, 1899.	Amount of Principal due Nov. 1, 1899.	Amount of Interest due Jan. 1, 1900.	Amount of Principal due Jan. 1, 1900.
First Issue	Nov. 1, 1892	$ 2,000,000	Nov. 1, 1893	$ 1,400,000	5 per cent	$35,000	.....	.....	$35,000	$100,000	.....	.....
Second Issue	Jan. 1, 1894	3,000,000	Jan. 1, 1895	2,250,000	5 per cent	.....	$ 56,250	.....	.....	.....	$ 56,250	$150,000
Third Issue	Aug. 1, 1894	3,000,000	July 1, 1895	2,400,000	5 per cent	.....	60,000	$150,000	.....	.....	56,250	.....
Fourth Issue	Feb. 1, 1895	4,600,000	Jan. 1, 1896	3,200,000	4½ per cent	.....	72,000	.....	.....	.....	72,000	200,000
Fifth Issue	Feb. 1, 1896	800,000	Jan. 1, 1897	680,000	4½ per cent	.....	15,300	.....	.....	.....	15,300	40,000
Sixth Issue	Jan. 15, 1897	800,000	Jan. 1, 1898	720,000	4½ per cent	.....	16,200	.....	.....	.....	16,200	40,000
Seventh Issue	July 1, 1898	200,000	June 30, 1918	200,000	3½ per cent	.....	3,500	.....	.....	.....	3,500	.....
Eighth Issue	Jan. 2, 1899	190,000	Jan. 1, 1919	190,000	3½ per cent	.....	3,306	.....	.....	.....	3,325	.....
Totals	.....	$13,990,000	.....	$11,040,000	.....	$35,000	$226,556	$150,000	$35,000	$100,000	$222,825	$430,000

RECAPITULATION.

Amount of interest due May 1, 1899	$ 35,000
Amount of principal and interest due July 1, 1899	376,556
Amount of principal and interest due November 1, 1899	135,000
Amount of principal and interest due January 1, 1900	652,825
Total amount of principal and interest due to January 1, 1900	$1,199,381

CHICAGO, January 2, 1899.

(Signed) JOSEPH F. HAAS, *Clerk.*

GROSS RECEIPTS—SANITARY DISTRICT OF CHICA

MONTHS—1898.	Construction Account.	Tax Account.	Bond Account.	Interest and Premium Account.	Interest Account.	General Account
January	.....	.....	.....	.....	$561 39	.....
February	.....	$ 45,000 00	.....	.....	409 47	.....
March	.....	363,522 76	.....	.....	549 48	$450
April	.....	518,441 51	.....	.....	996 58	.....
May	.....	300,000 00	.....	.....	652 71	.....
June	.....	300,000 00	.....	.....	778 40	.....
July	.....	300,000 00	$200,000 00	$7,320 00	655 38	.....
August	$4 12	300,000 00	.....	.....	576 00	.....
September	.....	300,000 00	.....	.....	561 95	.....
October	.....	450,000 00	.....	.....	524 93	.....
November	.....	.....	.....	.....	175 26	6
December	.....	386,196 27	190,000 00	7,239 00	738 85	108
Totals	$4 12	$3,263,160 54	$390,000 00	$14,559 00	$7,180 40	$565

GROSS EXPENDITURES—SANITARY DISTRICT OF CHICA

MONTHS—1898.	Engineering Department.	Construction Account.	Clerical Department.	Treasury Department.	Law Department.	Land Account.	General Account.	Bond Account.	Interest and Premium
January	$ 1,112 28	$ 43,474 28	$ 7 03	.....	$ 1,073 75	$ 85,136 30	$ 2,614 22	.....	.....
February	10,557 80	151,180 21	1,050 38	$ 168 66	3,412 69	131,679 95	3,025 72	.....	.....
March	19,341 73	16,367 77	1,986 52	343 33	7,253 65	615 00	6,481 72	.....	.....
April	715 63	31,270 22	83 00	.....	3,300 83	69,670 00	2,903 64	.....	$ 37,
May	9,988 11	64,030 86	1,033 08	175 41	7,081 89	1,678 00	3,185 10	.....	.....
June	18,137 33	114,671 24	1,975 42	333 32	8,757 13	18,517 16	6,133 09	$150,000 00	233,
July	536 20	84,190 90	26 74	18 55	644 56	7,420 05	1,400 23	.....	.....
August	10,361 07	143,321 16	1,015 22	166 66	3,435 99	8,058 45	4,704 36	.....	.....
September	17,987 56	138,908 58	1,982 12	333 32	6,109 17	15,805 00	5,277 85	.....	.....
October	1,588 05	173,766 59	39 54	.....	202 75	.....	1,253 56	100,000 00	37,
November	10,953 83	102,481 20	658 75	231 32	16,733 09	1,500 00	3,214 88	.....	.....
December	18,227 35	176,256 51	2,359 26	333 33	14,457 67	35,095 50	4,420 60	430,000 00	233,
Totals	$119,506 94	$1,239,919 52	$ 12,217 06	$2,103 90	$ 72,463 17	$375,175 41	$44,614 97	$680,000 00	$541,

CHICAGO, January 2, 1899.

FROM JANUARY 1, 1898, TO DECEMBER 31, 1898.

Police Department.	Weir, McKechney & Co.	Angus & Gindele.	Tax Levy, 1897.	Tax Levy, 1898.	Emergency Funds.	Land Account.	Monthly Totals.
.....	.....	.....	$136,514 03	.....	.....	.....	$137,075 42
.....	.....	.....	251,926 70	$ 53,595 96	.....	.....	350,932 13
.....	.....	.....	.....	57,765 68	.....	$ 150 00	422,437 92
.....	.....	.....	.....	112,434 85	.....	122 50	631,995 44
$250 00	.....	.....	.....	90,577 76	.....	1,184 50	392,414 97
.....	.....	.....	.....	177,470 13	.....	.....	478,498 53
.....	.....	.....	.....	94,635 13	$5,000 00	.....	607,610 51
.....	.....	.....	.....	174,301 43	.....	288 00	475,119 55
.....	.....	.....	.....	202,913 42	.....	9 89	503,485 26
.....	.....	.....	.....	176,852 78	.....	45 00	627,422 71
.....	$43 98	$123 45	.....	187,162 88	1,861 51	30 00	139,403 75
.....	.....	.....	.....	257,376 45	416 66	.....	842,076 07
$250 00	$43 98	$123 45	$388,440 73	$1,535,086 47	$7,278 17	$1,779 89	$5,608,472 26

FROM JANUARY 1, 1898, TO DECEMBER 31, 1898.

Disbursements.	Tax Account.	Interest Account.	Tax Levy, 1896.	Tax Levy, 1897.	Emergency Fund.	Maintenance Account.	Weir, McKechney & Co.—Sec. F.	Halvorson, Richards & Co.—Sec. E.	E. D. Smith & Co.	Monthly Totals.
.....	.....	$ 1,354 42	.....	.....	.....	$ 406 38	$ 502 55	.....	$2,400	$ 138,142 96
.....	.....	1 74	$ 55 18	.....	.....	943 01	.....	$ 2,258 64	.....	307,129 14
.....	.....	11,617 04	10,000 00	$ 208,812 58	.....	1,835 38	.....	.....	.....	290,009 62
.....	.....	22,577 73	.....	505,283 10	$5,000	1,351 48	.....	.....	.....	679,795 94
.....	.....	16,478 39	35,056 91	361,306 86	.....	1,618 60	.....	.....	.....	504,406 30
.....	.....	111 10	.....	2,927 92	.....	5,263 42	.....	.....	.....	565,666 86
.....	.....	13,856 93	113 02	347,380 49	.....	1,572 42	.....	.....	.....	457,295 01
.....	.....	13,885 37	.....	362,917 20	.....	2,765 75	.....	.....	.....	553,264 17
.....	$ 8,723 62	7,595 24	.....	241,901 58	.....	3,400 62	.....	.....	.....	453,037 60
.....	.....	15,039 41	.....	507,204 49	.....	818 75	.....	.....	.....	837,518 07
.....	.....	321 09	.....	10,000 00	300	1,389 00	.....	.....	.....	150,581 38
.....	.....	504 05	903 90	14,707 77	1,000	1,857 03	.....	.....	.....	938,487 25
.....	$ 8,723 62	$ 103,342 51	$46,129 01	$ 2,562,441 44	$6,300	$23,221 84	$ 502 55	$ 2,258 64	$2,400	$5,875,334 30

(Signed) JOSEPH F. HAAS, *Clerk.*

GROSS RECEIPTS—SANITARY DISTRICT OF CHICAGO

Year.	Engineering Department.	Construction Account.	Loans.	Tax Account.	Bond Account.	Bond, Interest and Premium Account.	Law Department.	Land Account.	Interest Acct.
1890	.....	.....	$ 75,000	.....	.....	.....	.....	.....	$ 10[illegible]
1891	$ 1,583 33	.....	25,000	$ 957,260 78	.....	.....	.....	.....	6,0[illegible]
1892	348 00	.....	.....	1,022,349 75	$ 1,010,000	$ 17,240 63	.....	$ 1,176 50	$ 26,[illegible]
1893	1,284 74	.....	.....	1,167,097 26	990,000	25,920 33	.....	2,445 65	51,6[illegible]
1894	364 00	$80,041 60	.....	1,148,607 21	6,000,000	84,778 38	$1,790 00	31,682 88	47,1[illegible]
1895	681 08	1,513 98	.....	1,173,750 05	4,000,000	22,095 89	1,500 00	10,175 00	48,0[illegible]
1896	3,044 71	.....	.....	3,471,144 90	800,000	12,296 35	.....	.....	9,4[illegible]
1897	9,867 92	5,020 02	.....	3,458,813 71	800,000	17,168 00	32 67	422 65	14,4[illegible]
1898	.....	4 12	.....	3,263,160 54	390,000	14,559 00	.....	1,779 89	7,1[illegible]
Totals	$17,173 78	$86,579 72	$100,000	$15,662,184 20	$13,990,000	$194,058 58	$3,322 67	$47,682 57	$210,[illegible]

CHICAGO, January 2, 1899.

FROM FEBRUARY 1, 1890, TO DECEMBER 31, 1898.

General Account.	Police Department.	Tax Levy 1895.	Tax Levy 1896.	Tax Levy 1897.	Tax Levy 1898.	Emergency Fund.	Weir, McKechney & Co.	Angus & Gindele.	Annual Totals.
.....	.....	.....	.....	.....	.....	.....	.....	.....	$ 75,100 85
.....	.....	.....	.....	.....	.....	.....	.....	.....	989,897 90
20 00	.....	.....	.....	.....	.....	.....	.....	.....	2,077,164 06
1,330 00	.....	.....	.....	.....	.....	.....	.....	.....	2,289,694 97
1,370 00	.....	.....	.....	.....	.....	.....	.....	.....	7,399,367 93
1,344 50	.....	$1,278,154 53	.....	.....	.....	.....	.....	.....	6,537,808 16
114 62	.....	1,423,059 24	$2,455,425 37	.....	.....	$ 500 00	.....	.....	8,175,768 08
426 00	$182 30	.....	127,603 97	$2,190,543 49	.....	1,500 00	$ 273 32	.....	6,626,329 95
365 51	250 00	.....	.....	388,440 73	$1,535,086 47	7,278 17	43 98	$ 123 45	5,608,472 26
4,968 63	$432 30	$2,701,213 77	$2,583,029 34	$2,578,984 22	$1,535,086 47	$9,278 17	$317 30	$123 45	$39,729,604 16

(Signed) JOSEPH F. HAAS, *Clerk.*

TO DECEMBER 31, 1898.

YEAR.	En De	Tax Levy, 1896.	Tax Levy, 1897.	Emerg Fu
1890	$	.....	.....	.....
1891		.....	.....	.....
1892		.....	.....	.....
1893		.....	.....	.....
1894		.....	.....	.....
1895		.....	.....	.....
1896		.....	.....	$7,56
1897		.....	.....	6,56
1898		$2,524,190 98	.....	6,36
		46,129 01	$2,562,441 44	
als ...	$1,0	$2,570,319 99	$2,562,441 44	$20,36

alance on

rand total

CHICAG

MONTHLY REPORT FROM ENGINEERING DEPARTMENT.

The Clerk presented a report from the Engineering Department for the month of December, 1898, which, on motion of Mr. Jones, seconded by Mr. Smyth, was referred to the Committee on Engineering by unanimous consent.

AMENDMENT TO RULES.

Under the head of unfinished business the Clerk presented and read a report from the Committee on Rules, presented and laid over at the meeting held February 1, 1899 (page 5450 of the Proceedings), the report recommending the amendment of Rule 1 of the Rules of Order, and Rule 3 of the Rules and Regulations, as set forth in the report.

Mr. Jones, seconded by Mr. Kelly, moved that the report be adopted and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Carter, Eckhart, Jones, Kelly, Mallette and Smyth—six. Nays—none.

Upon this result the Chairman declared the motion carried.

The following is

THE REPORT:

"CHICAGO, February 1, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN — Your Committee on Rules, to which was referred the consideration of Rule 1 of the Rules of Order (page 5442 of the Proceedings), beg leave to report that they have duly considered the same, and also Rule 3 of the Rules and Regulations of the Board of Trustees, and respectfully report and recommend as follows:

That Rule 1 of the Rules of Order be amended so that the same may read as follows:

Rule 1—All regular meetings of the Board shall begin promptly at two o'clock P. M., and all special meetings shall convene promptly at the hour provided in the call or order for said special meetings.

That Rule 3 of said Rules be amended so that the same may read as follows:

Rule 3 — Regular meetings of the Board of Trustees shall be held on Wednesday of each week, at two o'clock P. M., sharp; provided, that from May 1 to October 1, the regular meetings of the Board shall be held on the second and fourth Wednesday of each month at the same hour.

Respectfully submitted,

(Signed) WILLIAM BOLDENWECK,
Chairman.

ALEX. J. JONES,

J. C. BRADEN,

J. P. MALLETTE,

Committee on Rules."

REQUEST FOR RELEASE OF BOND ON CONTRACTS FOR SECTIONS I AND K.

The Clerk presented a communication from Messrs. Christie & Lowe, contractors for Sections I and K, requesting the release of their bonds on their contracts for said sections.

Mr. Smyth, seconded by Mr. Jones, moved that the communication be referred to the Joint Committee on Finance and Engineering.

The motion prevailed unanimously and it was so ordered.

ADJOURNMENT.

Mr. Jones, seconded by Mr. Smyth, moved that the Board do now adjourn until Thursday, Feburary 16, 1899, at 2 o'clock P. M.

On roll-call the vote stood: Yeas—Messrs. Carter, Jones, Kelly, Mallette and Smyth—five. Nays—Mr. Eckhart—one.

Upon this result the Chairman declared the motion carried, and the Board then adjourned.

Joseph F. Haas
Clerk.

PROCEEDINGS

—OF THE—

BOARD OF TRUSTEES

—OF THE—

SANITARY DISTRICT OF CHICAGO.

FEBRUARY 16, 1899.

OFFICIAL RECORD.

Published by authority of the Board of Trustees of the Sanitary District of Chicago.

ADJOURNED MEETING.

The first adjourned session of the four hundred and twenty-seventh regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Thursday, February 16, 1899, at 2 o'clock P. M., pursuant to motion.

On roll-call Messrs. Boldenweck, Car-, Jones, Kelly, Mallette, Smyth and 'enter—seven members, were present.

President Boldenweck then called the ard to order.

MINUTES.

The minutes of the regular meeting ald February 8, 1899, were approved as rinted, on motion of Mr. Kelly, sec-ded by Mr. Mallette.

*VOUCHERS.

The Clerk presented the following vouchers:

ENGINEERING DEPARTMENT.

John R. Davis (test pits)	$ 274 00

GENERAL ACCOUNT.

John F. Higgins (printing Proceedings, January, 1899)	126 99
Total	$ 400 99

*To be paid by warrants, with interest coupons attached, drawn against the tax levy for 1898.

Mr. Carter, seconded by Mr. Wenter, moved that the vouchers as read and shown above be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Carter, Jones, Kelly, Mallette, Smyth and Wenter—seven. Nays—none.

Upon this result the President declared the motion carried.

REPORT IN REFERENCE TO PAYMENT ON CONTRACT FOR SUPERSTRUCTURE OF SOUTHWEST BOULEVARD BRIDGE.

Mr. Carter, Chairman, presented and the Clerk read a report from the Committee on Finance with reference to and accompanied by a voucher for $30,961.83 in favor of the J. C. Wagner Company, successors to Julius G. Wagner, the report recommending that said amount be paid the said company on their filing written authority from Julius G. Wagner to collect same.

Mr. Carter, seconded by Mr. Kelly, moved that the report be adopted and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Carter, Jones, Kelly, Mallette, Smyth and Wenter—seven. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, February 14, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Your Committee on Finance desires herewith to make report that the Chief Engineer of the District has executed the voucher hereto attached in favor of The J. G. Wagner Company, doing business formerly as Julius G. Wagner, for the contract for the superstructure of the Southwest Boulevard Bridge crossing the Main Channel on Contract Section O, in the sum of thirty-thousand, nine hundred sixty one and eighty-three hundredths ($30,961.83) dollars; and the Committee desires to recommend that said amount be paid to said The J. G. Wagner Company upon the condition that said company shall file with the Clerk of the District written authority to collect said sum for Julius G. Wagner, whose name is signed to the contract aforesaid, and to whom payment of the sum aforesaid must otherwise be made.

Respectfully submitted,

(Signed) Z. R. CARTER,
Chairman.
B. A. ECKHART,
THOS. KELLY,
ALEX. J. JONES,
FRANK WENTER,
Committee on Finance."

(One enclosure.)

REPORT IN REFERENCE TO PAYMENT ON CONTRACT FOR SUBSTRUCTURE FOR LEMONT HIGHWAY BRIDGE ACROSS MAIN CHANNEL.

Mr. Smyth, Chairman, presented, and the Clerk read a report from the Committee on Engineering, with reference to and accompanied by the report and voucher of the Chief Engineer for $1,171.44 in favor of Messrs. Sackley & Peterson, contractors for the substructure for Lemont Highway Bridge across Main Channel, presented and referred to that Committee at the meeting held February 8, 1899, (page 5457 of the proceedings], the Committee report recommending that the President and Clerk be authorized and directed to make final payment to said Sackley & Peterson in the sum of $1,171.44 upon the execution of a receipt in favor of the District, to be made by said contractors, releasing the District from any and all claims and demands of whatsoever kind and nature arising out of their contract.

Mr. Smyth, seconded by Mr. Carter, moved that the Committee report be adopted and recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Carter, Kelly, Mallette, Smyth and Wenter—six. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, February 15, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Your Committee on Engineering to which was referred (page 5457 of the Proceedings) a report of the Chief Engineer of the District in reference to the contract with Messrs. Sackley & Peterson for the substructure for the Lemont Highway Bridge across the Main Channel, herewith desires to make report that the Committee has examined said certificate and fully considered the subject matter thereof, and recommends as follows:

That the President and Clerk of the District be authorized and directed to make final payment to said Messrs. Sackley & Peterson in the sum of eleven hundred seventy-one and forty-four hundredths ($1,171.44) dollars, the sum found to be due said contractors in the voucher of the Chief Engineer hereto

attached, upon the execution of a receipt in favor of the District, to be made by said contractors, releasing the District from any and all claims and demands of whatsoever kind or nature arising out of the contract for the construction of the substructure of said Lemont Highway bridge.

Respectfully submitted,

THOMAS A. SMYTH,
Chairman.

THOMAS KELLY,

B. A. ECKHART,

Z. R. CARTER,

J. P. MALLETTE,

FRANK WENTER,

WM. BOLDENWECK,

Committee on Engineering."

(Accompanied by Chief Engineer's report and voucher.)

The following is

THE REPORT OF THE CHIEF ENGINEER:

"CHICAGO, February 8, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—The voucher in favor of Sackley & Peterson submitted herewith is complete and final so far as it relates to the substructure of the Lemont Highway Bridge, but does not complete all of the obligations of the contract under which this work was awarded, as the said contract provides for the construction of the Stephens Street Subway, should your Honorable Body decide to build the same.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,
Chief Engineer."

REPORT IN REFERENCE TO COMPLETION OF CONTRACT FOR SECTION F.

Mr. Smyth, Chairman, presented and Clerk read a report from the Com- ttee on Engineering with reference to l accompanied by the final certificate the Chief Engineer as to the com- ion of the contract with Messrs. han & Byrne for Section F, the report ommending that the President and rk be authorized and directed to ke final payment to said Gahan & rne in the sum of $17,142.21.

Mr. Smyth, seconded by Mr. Jones, ed that the report be adopted and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Jones, Kelly, Mallette, Smyth and Wenter—six. Nays—none. Excused and not voting—Mr. Carter—one.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, February 14, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Your Committee on Engineering herewith reports that the Chief Engineer of the District has awarded the final certificate for the completion of Section F of the Main Drainage Channel to Messrs. Gahan & Byrne, contractors on said section, in the sum of seventeen thousand one hundred forty-two and twenty-one hundredths ($17,142.21) dollars, and recommends as follows:

That the President and Clerk of the District be authorized and directed to make final payment to said Messrs. Gahan & Byrne in the Sum of seventeen thousand one hundred forty-two and twenty-one hundredths ($17,142.21) dollars, the sum found to be due said contractors in the aforesaid final certificate hereto attached.

Respectfully submitted,

(Signed) THOMAS A. SMYTH,
Chairman.

J. P. MALLETTE,

ALEX. J. JONES,

THOMAS KELLY,

FRANK WENTER,

WM. BOLDENWECK,

Committee on Engineering.

The following is

THE FINAL CERTIFICATE OF THE CHIEF ENGINEER:

"CHICAGO, February 15, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I hereby certify that Gahan & Byrne, contractors, have completed all of the work covered by their contract dated January 13, 1897, for the completion of Section "F," and by the

order of the Board of Trustees dated November 24th, 1897 (page 4340 of proceedings), in accordance with the said contract and order and to the full satisfaction of the Chief Engineer. This certificate is given subject to any unaccrued or unmatured liabilities arising or growing out of said contract.

The volume and value of work done by them is as follows:

Glacial drift, Main Channel, 186,157 cubic yards at 29½c	$ 54,916 32
Glacial drift, revetment excavation, 23,254 cubic yards at 29½c	6,859 93
Glacial drift, surface ditches, 2,009 cubic yards at 29½c	592 65
Solid rock, Main Channel, 37,448 cubic yards at 90c	33,703 20
Rip rap revetment, 22,418 cubic yards at 45c	10,085 85
	$106,157 95
Total amount paid	89,015 74
Total amount due and unpaid	$ 17,142 21

Respectfully submitted,

(Signed) ISHAM RANDOLPH,

Chief Engineer.

REPORT IN REFERENCE TO COMPLETION OF CONTRACT FOR SUBSTRUCTURE OF C., M. & N. BRIDGE ACROSS KEDZIE AVENUE NEAR EAST END OF SECTION N AND FOR SUPERSTRUCTURE OF A., T. & S. F. BRIDGE NEAR EAST END OF SECTION G.

Mr. Smyth, Chairman, presented, and the Clerk read a report from the Committee on Engineering, with reference to and accompanied by the final certificates of the Chief Engineer as to the completion of the contract with Messrs. McArthur Bros. Co. and Winston Co. for the substructure of the C., M. & N. Bridge across Kedzie Avenue near east end of Section N, and with the Carnegie Steel Company, Limited, for the superstructure of the A., T. & S. F. Bridge near east end of Section G, the report recommending that the President and Clerk be authorized and directed to make final payment to said McArthur Bros. Co. and Winston & Co. in the sum of $1,076.34, and to the said Carnegie Steel Company, Limited, in the sum of $20,416.00, upon the execution of a receipt in favor of the District by each of said contractors, respectively, in full, and releasing the District from any and all claims or demands whatsoever.

Mr. Jones, seconded by Mr. Smyth, moved that that part of the report in reference to the Carnegie Steel Company, Limited, be eliminated from the report and referred back to the Committee on Engineering.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Carter, Jones, Kelly, Mallette, Smyth and Wenter—seven. Nays—none.

Upon this result the President declared the motion carried.

Mr. Smyth, seconded by Mr. Jones, then moved that the report be adopted as amended.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Carter, Jones, Kelly, Mallette, Smyth and Wenter—seven. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT AS AMENDED:

CHICAGO, February 14, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Your Committee on Engineering to which was referred (page 5457 of the Proceedings) the final certificate of the Chief Engineer of the District in reference to the completion of the contract with Messrs. McArthur Brothers Company and Winston & Company for the excavating of the foundations and masonry and concrete work for the Chicago, Madison and Northern Railway Company's bridge across Kedzie Avenue on Contract Section N, herewith desires to report that the Committee has examined said certificate and fully considered the subject matter of the completion of the work done under said contract, and recommends as follows:

That the President and Clerk of the District be authorized and directed to make final payment to said Messrs. McArthur Brothers Company and Winston & Company in the sum of one thousand seventy-six and thirty-four hundredths ($1,076.34) dollars, the sum found to be due said contractors in the aforesaid final certificate hereto attached, upon the execution of a receipt in favor of the District to be made by said contractors in full, and releasing the District from any and all claims or demands of what-

soever kind or nature in said contract.

Respectfully submitted,

(Signed) THOMAS A. SMYTH,
Chairman.

J. P. MALLETTE,
Z. R. CARTER,
THOMAS KELLY,
FRANK WENTER,
WM. BOLDENWECK,
Committtee on Engineering"

(Two enclosures.)

The following is

THE FINAL CERTIFICATE OF THE CHIEF ENGINEER.

"CHICAGO, February 7, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I hereby certify that McArthur Brothers Company and Winston and Company have completed all of the work covered by their contract dated August 19, 1898, for excavating foundations, and masonry and concrete work, for the Chicago, Madison and Northern Railway Company's Bridge across Kedzie Avenue, on Contract Section "N." The work is done to the full satisfaction of the Chief Engineer, and in accordance with the terms of said contract with this District.

This certificate is given subject to any unaccrued or unmatured obligations imposed by the contract.

The volume and value of the work done is as follows:

Excavating, 1,909 cu. yds., at 50c.....	$ 954 50
Portland cement concrete, 561.81 cu. yds., at $7.00	3,932 67
Masonry, 33.88 cu. yds., at $16.00.....	542 08
Total amount earned.....	$ 5,429 25
Total amount paid.....	4,352 91
Total amount due and unpaid.....	$ 1,076 34

Respectfully submitted,

ISHAM RANDOLPH,
Chief Engineer."

ADJOURNMENT.

Mr. Mallette, seconded by Mr. Kelly, moved that the Board do now adjourn until Thursday, February 23, 1899, at 2 o'clock P. M.

The motion prevailed unanimously and the Board then adjourned.

Joseph F. Haas
Clerk.

PROCEEDINGS

—OF THE—

BOARD OF TRUSTEES

—OF THE—

SANITARY DISTRICT OF CHICAGO.

FEBRUARY 23, 1899.

OFFICIAL RECORD.

Published by authority of the Board of Trustees of the Sanitary District of Chicago.

ADJOURNED MEETING.

The second adjourned session of the four hundred and twenty-seventh regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Thursday, February 23, 1899, at 2 o'clock P. M., pursuant to motion.

On roll-call, Messrs. Carter, Eckhart, Kelly, Mallette, Smyth and Wenter—six members, were present.

In the absence of the President, the Clerk then called the Board to order.

ELECTION OF TEMPORARY CHAIRMAN.

Mr. Carter, seconded by Mr. Wenter, moved that Mr. B. A. Eckhart be elected temporary chairman.

The motion prevailed unanimously, and Mr. Eckhart was declared duly elected temporary chairman and thereupon took the chair.

MINUTES.

The minutes of the regular meeting held February 15, 1899, and of the adjourned session of the same, held February 16, 1899, were approved as printed, on motion of Mr. Kelly, seconded by Mr. Smyth.

*VOUCHERS.

The Clerk presented the following vouchers:

LAW DEPARTMENT.

Ambrose F. O'Connor (expert service) ..... $ 152 50

CONSTRUCTION ACCOUNT.

Halvorson, Richards & Co. (Sec. E., Feb. 16, 1899) .. $4,987 50

Geo. M. Huss (Sec. K, temporary bridge, Belt Ry.)	$224 00	
		$5,211 50
Total.....		$5,364 00

*To be paid by warrants, with interest coupons attached, drawn against the tax levy for 1898.

Mr. Carter, seconded by Mr. Mallette, moved that the vouchers as read and shown above be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Carter, Eckhart, Kelly, Mallette, Smyth and Wenter—six. Nays—none.

Upon this result the Chairman declared the motion carried.

WEEKLY REPORT ON EMPLOYES.

The Clerk presented a report in accordance with the rules, showing the number of persons in the employ of the District for the week ending February 18, 1899, which was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, February 23, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I beg leave to report herewith the number of persons in the employ of the District for the week ending February 18, 1899, as the same have been reported to me:

Engineering department.....	76
Maintenance account.....	8
Clerical department.....	5
Law department.....	8
Treasury department.....	1
Police department.....	28
Telephone operator.....	1
Total employes.....	127

Respectfully submitted,

(Signed) JOSEPH F. HAAS,

Clerk."

MONTHLY REPORT FROM LAW DEPARTMENT.

The Clerk presented a report from the Law Department for the month of January, 1899, which was read, and by unanimous consent was ordered printed and placed on file.

The following is

THE REPORT.

"CHICAGO, February 20, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I have the honor to transmit the report of the Law Department for the month of January, 1899.

The following are the expenses and disbursements for the month:

GENERAL EXPENSES.

Court costs.....	$1,419 00	
Expense account....	582 75	
Legal services.....	3,543 36	
Books, printing and stationery.....	1,215 76	
		$ 6,760 87

LAND ACCOUNT.

Right of way for which deeds have passed.....	$ 1,000 00
Total expenditures for the month.....	$ 7,760 87

The following is a brief resume of the several matters passed upon and coming within the jurisdiction of the department:

The case of Edward Payette et al. versus The Sanitary District of Chicago, in the Superior Court of Cook County, General No. 143,959, was tried before Judge Holdom and a jury. The jury were instructed to find for the defendant, and a verdict to that effect was rendered and judgment entered thereon.

The case of John Lynch versus Sanitary District of Chicago et al., in the Circuit Court of Cook County, General No. 159,807, was reached for trial before Judge Baker and continued.

The case of The Sanitary District of Chicago versus Lazarus Silverman, in the Superior Court of Cook County, General No. 164,039, was referred to Master in Chancery George W. Miller, to take proofs and report his conclusions.

The case of James Ray versus The Sanitary District of Chicago, in the Circuit Court of Will County, after a trial before Judge Hilscher, the jury returned a verdict of $320.00. This was for damages caused by flooding of the premises in question (about forty acres) for a period of four years prior to the starting of this suit. Under this decision the

District would be liable for all damage done in the future.

The case of Bowers and Brown versus The Sanitary District of Chicago, on motion of the defendant, was placed on the trial calendar of the United States Circuit Court.

The case of Mason, Hoge, King and Company versus James Reddick, Clerk, and The Sanitary District of Chicago, has been reached in the Appellate Court, First District of Illinois, and taken under advisement.

Henry J. Burke versus The Sanitary District of Chicago, in the Circuit Court of Cook County, General No. 165,615, was tried before Judge Hanecy and a finding entered in favor of plaintiff and judgment for $102.60. The Court holding that the eight hour law applied to inspectors of the Sanitary District, and that employes of this class can recover for any time in excess of that limitation. A motion for a new trial was made and overruled, and an appeal has been prayed and allowed to the Appellate Court.

Sidney A. Kent versus The City of Chicago, Sanitary District of Chicago et al., in the Circuit Court of Cook County, General No. 148,083. The demurrer of the Sanitary District was overruled and rule to plead instanter entered. This case is now on Judge Garver's trial calendar.

In addition to the above several briefs and opinions have been prepared by this department.

The preparation of the record in the case of Bridget McGuirl versus the Sanitary District of Chicago, together with the regular routine work of the office, will occupy this department for the ensuing month.

Very respectfully,

(Signed) CHARLES C. GILBERT,
Attorney."

REPORT IN REFERENCE TO COMPLETION OF CONTRACT FOR SECTION O.

The Clerk presented a report from the Chief Engineer, being final certificate in reference to the completion of the contract with the McMahon & Montgomery Co. et al. for Section O, which, on motion of Mr. Smyth, seconded by Mr. Wenter, was referred to the Committee on Engineering.

REPORT IN REFERENCE TO MONTHLY REPORT FROM ENGINEERING DEPARTMENT FOR DECEMBER, 1898.

Mr. Smyth, Chairman, presented a report from the Committee on Engineering with reference to and accompanied by the monthly report from Engineering Department for the month of December, 1898, presented and referred to that Committee at the meeting held February 15, 1899 (page 5472 of the proceedings), the Committee report recommending that the same be placed on file with the Clerk of the District.

Mr. Smyth, seconded by Mr. Mallette, moved that the Committee report be adopted and the recommendations contained therein concurred in.

The motion prevailed unanimously and it was so ordered.

The following is

THE COMMITTEE REPORT:

"CHICAGO, February 20, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Your Committee on Engineering, to whom was referred, at the meeting of the Board held on February 15, 1899 (page 5472 of the proceedings), the report of the Engineering Department of the District for the month of December, 1898, desire herewith to make report that the Committee has considered the same and returns the same herewith with the recommendation that it be placed on file with the Clerk of the District.

Respectfully submitted,

(Signed) THOMAS A. SMYTH,
Chairman.
J. P. MALLETTE,
Z. R. CARTER,
THOMAS KELLY,
B. A. ECKHART,
FRANK WENTER,
Committee on Engineering."

The following is

THE REPORT FROM ENGINEERING DEPARTMENT:

"CHICAGO, Feb. 10, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I herewith transmit the

report of the Engineering Department for the month of December, 1898, giving the detailed operations of the several divisions constituting the same.

The value of the construction work done during the month was $122,140.76, divided as follows: Main Channel, $54,543.43; bridges, $67,597.33. The engineering expenses for the month were $10,022.33, divided as follows: Salaries, $8,482.73; supplies, etc., $1,539.60. Details of the above figures are given in tabulated statements herewith.

DIVISION OF CONSTRUCTION.

The weather during the month was unfavorable to progress of the work. Rain or snow was recorded on seven days. The temperature varied from —2 degrees to 42 degrees above, Fahrenheit.

Chicago River Improvement—Very little work was done on the Adams Street By-pass owing to the delays occasioned by the floods at that point. It was not until the latter part of the month that the contractors succeeded in finishing the coffer dam around the center pier of the Adams street bridge and pumped the water out. The work of excavation was then begun again, the plant used being small dump cars, which were loaded by hand and run out from beneath the temporary roadway and then raised by means of an elevator and hoisting engine, and the material dumped into the river. The excavation was then dredged from the river and loaded into scows and dumped into the lake.

At Jackson street a small amount of excavation was accomplished and some work was done on the temporary roadway. Besides this, new anchor rods were put in the old dock in order to protect it and hold it from going into the river.

On December 9th, a small tug, "Blackball No. 2," was sunk on the line of this work, and the owners, after repeated efforts to raise the same, abandoned it. The District was negotiating for its removal during the month, but nothing was finally decided on during that period.

The total work done on the By-pass for the month was 300 cubic yards of excavation, 69,500 feet B. M. of timber used, and 1,600 lineal feet of piles driven. The contractors are now in shape to proceed more rapidly with the work.

The work of dredging the South Branch progressed rapidly, 70,200 cubic yards of material having been removed, as were also 150 lineal feet of dock. Dredges Nos. 1 and 2 worked altogether 64 shifts of eight hours, and loaded 214 scows. The work was between Ashland avenue and Main street, and the material excavated was mostly sludge.

Section "O"—The work of erecting the Southwest Boulevard Bridge was continued throughout the month.

The construction of the additional trestle for the Chicago Junction Railway Company at Campbell avenue crossing was continued during the entire month, and finished on the last day. The railway company was notified of its completion. A voucher was drawn as part payment during the month, which amounted to $1,735.00.

The different railway companies at the Campbell avenue crossing did more or less work during the month on their tracks over and near the temporary bridges. The trestle used by the Chicago Junction Railway Company was repaired during the month by A. T. Wilcox.

Section "N"—On this section shovel and train work was continued in day shifts only up to the 9th of the month; from that time to the end of the month the shovel worked but one day, the 20th. Regular and extra price vouchers for 9,679 cubic yards of glacial drift were drawn during the month, the extra price voucher being for haul to Southwest boulevard.

The work of excavating the Kedzie avenue roadway at the site of the C., M. & N. R. R. Co.'s viaduct was begun by Hayes Bros. about the middle of the month and diligently prosecuted until the end of the month, but not completed. The traffic on the street was not interfered with.

Some repairs were made to Gray & Drake's excavator and the whole machine boxed up to be used in fine weather. This machine was brought on this section some time ago, but has not yet been put in operation.

The final voucher for the substructure of the C., M. & N. R. R. Co.'s Bridge over the Main Channel was rendered on the 10th of the month, which amounted to $4,794.41. The work of erecting the superstructure for this bridge was continued throughout the month.

The substructure for the C., M. & N. R. R. Co.'s viaduct across Kedzie avenue was completed on the 2nd of the month and the backfilling and embankments

behind the abutments were completed on the 9th. The final voucher for the substructure of the Kedzie Avenue Bridge over the Main Channel was rendered on the 16th of the month, which amounted to $2,433.89. The work of erecting the superstructure for this bridge began on the 5th and continued throughout the month. On the 28th a voucher to the contractors for this work was issued for 60 per cent of the contract price for having delivered all of the material upon the site of erection. The work of grading approaches was continued throughout the month and a voucher for 1,721 cubic yards was rendered for that period.

The final voucher for the substructure of the A., T. & S. F. Ry. Bridge over the Main Channel was rendered on the 29th of the month and amounted to $3,544.62. A small force worked on the superstructure during a portion of the month, setting track castings and center pins. The raising of the Santa Fe main line tracks was completed during the month.

Section "H"—The raising of a dam across the Main Channel near Station 348, in order to protect the unfinished portion of the section was begun on the 10th and continued to the end of the month. The work is being done by Gahan & Byrne's wheel scraper force.

Section "G"—A voucher was drawn during the month for 1,024 cubic yards of material taken off from the new Santa Fe railroad bank across this section during October and November. It was found necessary to cut down this bank for the greater portion of its length as an excessive amount of shrinkage was allowed on same at the time of its construction.

Section "F"—Rock excavation by traveling derrick was continued throughout the month, the plant having worked only during the day time. All of the rock excavated was used in revetment wall. The quantities vouchered on account of this work are as follows: Glacial drift, 1,000 cubic yards; solid rock, 1,000 cubic yards; revetment wall, 3,000 cubic yards. The final measurements and calculations for the final estimate on this section were begun during the month and were well under way on the 1st of January. The shovel used on this section was moved east as far as the Santa Fe bridges on Section "G," and the wheel scraper force used in trimming up the slopes and bottoms of the completed portions of the section continued work to the 10th of the month.

The concrete work in the north abutment of the substructure for the Summit-Lyons road permanent bridge over the Main Channel was completed on the 12th, and the masonry for same was completed on the 23rd of the month. The masonry work for the south abutment was begun on the 3rd and finished on the 8th of the month. Both abutments were backfilled. The excavation for the center pier was begun on the 27th of the month. The quantities vouchered on account of this work are as follows: Excavation, 1,379 cubic yards; timber in foundation, 2,500 feet B. M.; piles delivered, 820 lineal feet; piles driven, 502 lineal feet; Portland cement concrete, 225 cubic yards; masonry, 360 cubic yards.

Section "E"—The traveling derrick continued to remove rock the entire month. The Peteler car plant also worked on rock excavation during that period. The total output of these two plants was 5,674 cubic yards, all of which was placed in revetment wall. There was excavated from the hard stratum referred to in the monthly report for November 2,986 cubic yards, 40 per cent or 1,195 cubic yards of which was classified as rock. The Merry-go-round plant continued work throughout the month, removing 3,972 cubic yards of material from the Main Channel prism and 7,221 cubic yards from revetment excavation. One thousand one hundred and ninety-five cubic yards of this amount was classified as solid rock. The quantities vouchered on account of this work are as follows: Glacial drift, Main Channel, 2,777 cubic yards; solid rock, Main Channel, 6,869 cubic yards; revetment excavation, 7,221 cubic yards; revetment wall, 11,666 cubic yards.

The work of excavation for the south abutment of the C. T. T. R. R. Bridge over the Desplaines River was continued up to the 10th of the month and nearly completed. The banks fell in and the pit filled with water, causing the work to be practically abandoned. Six hundred cubic yards were vouchered on account of this work during the month. There were also vouchered during the month 1,194 cubic yards for grading approaches to this bridge, which work is completed with the exception of the ballast. The C. T. T. R. R. Co. was employed during the month hauling and placing sand for ballasting its tracks between those of the C. & A. R. R. and the Santa Fe Ry. Co.

The C. T. T. R. R. Co.'s temporary bridge over the Main Channel was re-

moved between the 5th and 17th of the month; 26,448 feet B. M. of the material in this structure were hauled to the Pan Handle crossing and used in the new trestle for the Chicago Junction Railway Company. The remainder of the material was stored on the ground. The total quantity of material saved from this structure amounts to 104,527 feet B. M., for which a voucher to G. M. Huss was drawn, together with compensation for loading 26,448 feet B. M. of this amount, and an extra item for removing rails from the structure. A voucher for the construction of the C. T. T. R. R. Co.'s temporary bridge over the Desplaines River was drawn during the month, which amounted to $3.358.40.

The false work under the old Summit-Lyons Road permanent bridge over the Desplaines River was removed by the Massillon Bridge Company during the month, and a final voucher amounting to $1,700.00 was issued to them on account of their entire work on this bridge. The Chicago Crushed Stone Company were given a voucher for $291.02 for the delivery of 323.36 cubic yards of stone to the north approach of this bridge. The following quanties were also vouchered on account of this structure: Grading approaches, 3,643 cubic yards glacial drift; removing old roadbed, 500 cubic yards glacial drift.

Section 1—Work continued on the Willow Springs Road permanent bridge over the Main Channel up to and including the 6th of the month, at which time all substructure work under the contract was finished. The quantities vouchered for the month on this account are as follows: Excavation, 133 cubic yards; Portland cement concrete, 99.4 cubic yards; masonry, 89.2 cubic yards. A final voucher was rendered these contractors on the 31st of the month, which amounted to $1,881.02.

Section 7—Stone cutting for the Lemont Road permanent bridge across the Main Channel on Section 8 was begun on the 29th of November and continued up to and including the 18th of the month with an average force of seven stone cutters employed daily. A traveler was used at the cutting dock for loading stone. One boat load of stone was shipped to Romeo on the 1st and two boat loads to Summit during the remainder of the month. Stone for Summit was transferred into seven cars at Lemont. A force of four laborers was engaged from the 1st to the 3rd of the month in taking up tracks, dismantling derricks, etc.

Section 8—The placing of iron work for the superstructure of the A., T. & S. F. Ry. Co.'s Bridge over the Main Channel was prosecuted throughout the month with little interruption. Two large hand derricks were used and an average of twelve laborers employed. Work continued throughout the month on the Santa Fe Railroad embankment with a daily average force used of twenty-two laborers, four teams and twenty-five dump cars in conjunction with the steam shovel and cable incline hoisting engine. The steam shovel was moved twice during the month and the haul would average one thousand feet; 18,600 cubic yards of material, the greater portion of which was loose rock, were placed in embankment in twenty-one days, averaging 648 cubic yards per day. Vouchers amounting to $143.00 were issued to the Santa Fe Company for expenses in connection with the work.

The placing of concrete in the center pier for the Lemont Road permanent bridge over the Main Channel was begun on the 20th and was completed on the 22nd of the month. The laying of masonry was begun on the 8th and completed on the 23rd of the month. One steam and one hand derrick were used on this work and an average of fourteen laborers, including stone cutters, and three teams were employed. The quantities vouchered for the month on account of this work are as follows: Portland cement concrete, 50 cubic yards; masonry, 270 cubic yards. A voucher for $193.39 for work on Lemont Road was issued to Mason, Hoge, King & Co.

A voucher for $10,440.06 was issued during the month to the Penn Bridge Co. for work on superstructure of the A., T. & S. F. Ry. Co.'s bridge across the Desplaines River on this section.

Bear Trap Dam—A force of five or six men was employed at this point in the construction of large oak gates and placing and painting iron work.

Section 16—Only a small amount of work was done on this section during the month. An average force of nine or ten laborers and three or four teams were engaged in excavation up to and including the 12th of the month, and 1,200 cubic yards were vouchered for that period. A voucher to Hayes Bros. for work on the temporary Lockport road in October and November, amounting to $206.20, was issued in December;

also one in favor of P. T. Dunn & Co. for lights installed on Lockport temporary road.

Section 17—Work on this section was confined to the portion north of Ruby street and west of the Upper Basin and Illinois and Michigan Canal, and continued day and night throughout the greater part of the month. The plant in operation consisted of one steam shovel, two locomotives, one steam derrick, five steam drills, six wheeled scrapers and two cable incline hoists. One-yard and five-yard dump cars were also used, and three pumps were run in double shifts throughout the month. About 10,200 cubic yards of earth were taken out of this section as follows: 5,400 cubic yards with wheeled scrapers; 3,000 cubic yards by wheelbarrow forces; 500 cubic yards with wagon gangs, and 1,300 cubic yards with car gangs of shovelers, one-yard and five-yard cars being used. Twenty-five thousand two hundred cubic yards of solid rock were excavated as follows: 9,000 cubic yards by steam shovel, loaded into five-yard cars and removed to spoil area by locomotives in 39 half shifts, averaging 228 cubic yards per shift; 4,000 cubic yards by steam derrick and skips in connection with trains of five-yard cars handled by locomotives in 21 half shifts, averaging 186 cubic yards per shift; 11,400 cubic yards by car gangs of rock, men using one-yard cars; 800 cubic yards by wagon and wheelbarrow forces.

Section 18—Work on this section was confined to the new river channel below Jefferson street. Three thousand four hundred cubic yards of material were vouchered for this work for the month in 21 half shifts, averaging 158 cubic yards per shift. One steam drill and an average of 17 one-yard dump cars were used in connection with laborers and teams.

Pumping Plant—The rotary pump was run continuously during the month. As the boilers remained in poor condition it was found impracticable to run more an one pump. The elevation of water ı Dec. 31st was 3.4 feet above grade.

IVISION OF DRAFTING AND DESIGNING.

The regular platting was continued on ontour maps between Lockport and emont; on the 50-foot scale maps of the forth Branch of the Chicago River and n the atlas of the right of way.

The following drawings, etc., were made: Drawings to accompany the contract of the Sanitary District with the Economy Light and Power Company; drawings attached to modified decree in case of Illinois and Michigan Canal Commissioners vs. Sanitary District of Chicago; diagrams showing means of analysis along waterways between Bridgeport and Alton; plan of Pan Handle temporary tracks showing substructure of bridge and a cross section of the left bank of the Upper Basin at Joliet, showing contemplated rip-rap work at that point.

Work was continued on the plans for the Jefferson and Cass Street Bridges at Joliet; considerable work was also done on the plans of the C., R. I. & P. Ry. Co.'s Bridge at Joliet. The plans for these three bridges were all completed in pencil drawings. Some time was spent in the inspection of the superstructure of the Kedzie avenue draw span across the Main Channel. Several changes were taken up in the plans of the C., M. & N. R. R. Co.'s Bridge; the A., T. & S. F. Ry. Co.'s Bridge at Twenty-sixth street, and the Willow Springs Road and Romeo Road draw spans. General plans for the Tow-path Bridge at Joliet were made. Some time was also spent in the inspection of the entire work of construction.

Work was continued on details of plans for Regulating Works. Some time was given to the plans of the By-pass along the Chicago River, and to the widening of the river at Canal street. Considerable time was devoted to the plans for the work through Joliet. The testing of sand and cement for use in the work of construction was continued, as was also the work of preparing record photographs and the maintenance of water gauges.

The Bedford stone to be used as coping in the By-pass work along the Chicago River was inspected. Some time was given to hydraulic work pertaining to the Chicago and Desplaines Rivers and to Lake Michigan.

DIVISION OF RECORDS.

The work of checking the construction detail sheets was carried on as usual. The tabulated statements showing the values and quantities of work done for the month of November, together with the financial statement for the same period, were completed. The books of the Engineering Department have been

kept, all correspondence has been carried on, pay rolls have been issued, letters and documents have been filed, and all other clerical work has been carried on.

I estimate the expenses of the Department for the month of January will be $140,000.00.

Respectfully submitted,

ISHAM RANDOLPH,
Chief Engineer.

SANITARY DISTRICT OF CHICAGO—ENGINEERING DEPARTMENT.

CLASSIFIED STATEMENT OF EXPENDITURES DURING THE MONTH OF DECEMBER, 1898.

Classification.	Engineering Expenses.			Construction.	Total to Date.	
	Salaries.	Supplies, Etc.	Total.		Eng. Expenses.	Construction
Preliminary Sundries	.....	.....	.....	.....	$120,633 75	.....
Locating Route Main Channel	.....	.....	.....	.....	32,222 94	.....
Borings and Test Pits	.....	.....	.....	.....	18,132 44	.....
Maps and Plans for General Use of Sanitary District	$ 85 40	.....	$ 85 40	.....	52,830 30	.....
Chicago River Survey	125 00	.....	125 00	.....	63,516 50	.....
Chicago River Improvement	1,086 16	$ 3 00	1,089 16	$ 13,793 07	19,708 49	$ 126,650 19
Right of Way	609 00	23 07	632 07	.....	36,310 06	.....
Flood Measurements	49 46	.....	49 46	.....	26,473 08	.....
Disposal Works and Joliet Project	2,301 61	78 54	2,380 15	22,350 13	81,097 14	377,577 88
Regular Construction—Main Channel and River Diversion	1,443 38	67 92	1,511 30	15,337 55	558,942 39	18,271,194 88
Extra Work—Main Channel	.....	.....	.....	.....	31 33	63,618 63
Extra Work—River Diversion	.....	.....	.....	.....	9,723 42	334,304 74
Levees, Embankments, etc.	.....	.....	.....	.....	1,022 49	193,177 19
Spillway	.....	.....	.....	.....	1,754 91	20,518 41
Wire Mills Road Permanent Bridge over Main Channel, Sec. 16	75 00	.....	75 00	.....	395 54	.....
Lockport Temporary Roadway Bridge over Main Channel, Sec. 16	.....	.....	.....	258 56	.....	1,191 23
Lockport Road Permanent Bridge over Main Channel, Sec. 16	30 00	.....	30 00	.....	337 70	.....
Romeo Road Permanent Bridge over Main Channel, Sec. 12	7 00	46 16	53 16	.....	694 77	.....
Romeo Road Temporary Bridge, over Main Channel, Sec. 12	.....	.....	.....	.....	.....	1,120 78
Work Account Western Stone Company's Quarry No. 5, Sec. 10	.....	.....	.....	.....	.....	8,865 65
Western Stone Company's Bridge over Desplaines River, Sec. 10	.....	.....	.....	.....	1,157 05	15,983 03
Western Stone Company's Temp. Bridge over Main Channel, Sec. 9	.....	.....	.....	.....	.....	1,012 30
Lemont Road Permanent Bridge over Main Channel, Sec. 8	247 50	52 16	299 66	3,212 20	883 14	5,005 95

SANITARY DISTRICT OF CHICAGO—ENGINEERING DEPARTMENT—*Continued.*

CLASSIFIED STATEMENT OF EXPENDITURES DURING THE MONTH OF DECEMBER, 1898.

Classification.	*Engineering Expenses.*			Construction.	*Total to Date.*	
	Salaries.	Supplies, Etc.	Total.		Eng. Expenses.	Construction
Lemont Road Temporary Bridge over Main Channel, Sec. 8						$ 1,115 09
Lemont Road Permanent Bridge over Desplaines River, Sec. 8					$ 985 66	22,329 89
A., T. & S. Fe Ry. Co.'s Temporary Bridge over Desplaines River, Sec. 8					770 79	18,738 80
A., T. & S. Fe Ry. Co.'s Permanent Bridge over Desplaines River, Sec. 8		$ 391 22	$ 391 22	$ 10,440 06	3,174 77	26,574 06
A., T. & S. Fe Ry. Co.'s Permanent Bridge over Main Channel and track deviation, Sec. 8	$ 255 00	13 06	268 06	2,285 00	3,975 68	22,017 13
Willow Springs Road Temporary Bridge over Main Channel, Sec. 1					9 00	1,987 00
Willow Springs Road Permanent Bridge over Main Channel, Sec. 1	82 50	9 09	91 59	2,935 39	1,083 48	7,918 52
Mt. Forest Foot Bridge over Illinois and Michigan Canal, Sec. A					32 17	
C. T. T. R. R. Co.'s Temporary Bridge over Main Channel, Sec. E	80 00		80 00	622 25	418 42	7,007 38
C. T. T. R. R. Co.'s Permanent Bridge over Main Channel, Sec. E	50 00		50 00	663 63	3,309 32	47,611 06
C. T. T. R. R. Co.'s Temporary Bridge over Desplaines River, Sec. E	60 00		60 00	3,358 40	280 00	3,353 40
C. T. T. R. R. Co.'s Permanent Bridge over Desplaines River, Sec. E	60 00		60 00		668 09	
Lyons-Summit Road Temporary Bridge over Main Channel, Sec. E	40 00		40 00		389 05	5,649 52
Lyons-Summit Road Permanent Bridge and roadway over Main Channel, Sec. F	60 00	46 17	106 17	4,643 35	1,642 38	11,937 19
Lyons-Summit Road Temporary Bridge over Desplaines River, Sec. E					40 00	
Lyons-Summit Road Permanent Bridge over Desplaines River, Sec. E	70 00		70 00	3,026 68	1,272 12	12,830 82
A., T. & S. Fe Ry. Co.'s Permanent Bridge over Desplaines River, Sec. F					891 45	
A., T. & S. Fe Ry. Co.'s Temporary Bridge over Main Channel, Sec. G					7 00	
A., T. & S. Fe Ry. Co.'s Permanent Bridge over Main Channel and track deviation, Sec. G	90 00		90 00	266 72	4,735 53	83,995 71
A., T. & S. Fe Ry. Co.'s Permanent Bridge over Desplaines River, Sec. G					293 50	
C. & W. I. Belt Ry's Permanent Bridge over Main Channel, Sec. K					1,240 99	
A., T. & S. Fe Ry. Co.'s Temporary Bridge over Main Channel, Sec. N					423 69	3,444 78
A., T. & S. Fe Ry. Co.'s Permanent Bridge over Main Channel, Sec. N	96 00		96 00	4,578 35	4,533 98	50,026 97

..oadway over Main Channel, Sec. N.	.....	.....	.....	37 76	512 15	1,067 72
Kedzie Avenue Permanent Bridge over Main Channel, Sec. N.	150 00	61 89	211 89	15,618 72	2,957 77	34,147 09
C., M. & N. R. R. Co.'s bridges over M. C. and Kedzie Av. viaduct, and track deviation, Sec. N.	168 00	536 89	699 89	12,155 55	6,630 35	185,180 98
Western Avenue Temporary Bridges over Main Channel, Sec. O.	.....	.....	.....	50 88	1,557 97	8,659 76
Southwest Boulevard Permanent Bridge over Main Channel, Sec. O.	90 00	133 00	223 00	1,698 88	11,104 18	93,447 95
Pan Handle R. R. Co.'s Temporary Bridges over Main Channel, Sec. O.	180 00	.....	180 00	2,990 46	3,192 19	42,089 39
Pan Handle R. R. Co.'s Permanent Bridge over Main Channel, Sec. O.	88 55	60 00	148 55	5,602 52	12,325 95	57,798 20
Taylor Street Permanent Bridge over Chicago River	.....	.....	.....	4,222 22	.....	4,222 22
C. T. T. R. R. Co.'s Permanent Bridge over Chicago River	.....	.....	.....	8,444 45	.....	8,444 45
E. J. & E. R. R. Co.'s Bridge over Main Channel, North of Joliet	.....	.....	.....	.....	1,658 94	41,984 62
Tow Path Permanent Bridge over Main Channel, Sec. 17	9 00	.....	9 00	.....	9 00	.....
Jefferson Street Permanent Bridge over Main Channel at Joliet	125 00	.....	125 00	.....	418 67	.....
Cass Street Permanent Bridge over Main Channel at Joliet	105 00	.....	105 00	.....	431 47	.....
C., R. I. & P. Ry's. Permanent Bridge over Main Channel at Joliet	120 00	.....	120 00	.....	326 00	.....
Moving and Repairing Bridges	.....	.....	.....	.....	614 88	8,341 44
Building Romeo Highway, Sec. 12	.....	.....	.....	.....	106 34	1,732 72
Saving of Building Sand	.....	.....	.....	.....	.....	781 63
Mortar, Sand and Cement Tests	224 17	17 50	341 67	.....	31,526 28	.....
Saving of Dimension Stone	.....	.....	.....	.....	.....	11,233 20
Erosion Tests	.....	.....	.....	.....	1,496 75	.....
Temporary Sanitary Relief	.....	.....	.....	.....	237 60	.....
Photographs of Works	125 00	.....	125 00	.....	9,111 71	.....
Public Reports	.....	.....	.....	.....	3,580 16	.....
Remeasurement of Main Channel	.....	.....	.....	.....	5,283 89	.....
Effect of Main Channel Water on Lake Levels	.....	.....	.....	.....	1,798 38	.....
General Account	.....	.....	.....	.....	71,947 23	.....
Totals	$8,482 73	$1,539 60	$10,022 33	$127,402 64	$1,223,266 23	$20,194,790 15

VALUES— STATEMENT SHOWING CONDITION OF

Designation.	Amount earned during Dec., 1898.				Amount earned to date.			
	Main Channel.	Bridges.	General.	Total.	Main Channel.	River Diversion.	Bridges.	General.
Chicago River Imp'ment	$15,763 50			$15,763 50	$ 148,922 40			
O		$ 3,041 29		3,041 29	332,615 11		$ 60,234 30	
N	2,263 93			2,263 93	200,671 52		3,444 78	
M.					158,015 06			
L					217,287 06			
K					287,299 54			
I.					289,846 00			
H					289,531 06			
G					387,701 88			
F	2,545 00			2,545 00	336,978 72	$ 75,627 78		
E	12,757 46	3,975 65		16,733 11	676,678 23	29,091 91	14,718 80	$ 260 00
D					592,039 29	2,880 54		
C.					443,342 59	40,135 18		781 00
B					438,986 42	59,451 34		150 00
A					801,584 08	115,741 73		
1.					1,210,660 37	143,908 29	1,987 00	30 00
2.					877,695 00	63,190 86		90 00
3.					840,952 93	338 42		
4.					975,248 98	83,304 43		85 00
5.					749,207 28	6,653 64		
6.					686,282 00	55,911 37		
7.					722,544 74	66,193 19		8,758 00
8.					888,834 43	89,683 90	19,858 89	2,580 00
9.					794,838 28	23,573 72	1,012 39	
10.					921,454 79	78,729 58		8,952 [illegible]
11.					797,717 50	43,854 42		
12.					837,660 69	21,768 52	1,120 78	
13.					819,388 19			
14					931,457 10			
15.					551,915 85	117 61		
16.	726 56			726 56	38,631 23			
17.	18,834 00			18,834 00	86,164 21			
18.	1,652 98			1,652 98	19,158 58			
Disposal Wks. at Lockp't					243,579 25			
Repairing I. & M. Canal.								18,052 8[illegible]
Van Buren St. Approach Span, Chicago River...								
Taylor St. Br. over Chicago River		4,222 22		4,222 22			4,222 22	
C. T. T. R. Co.'s Br. over Chicago River		8,444 45		8,444 45			8,444 45	
S. W. Blvd. Br., over M. C., Sec. O		1,935 80		1,935 80			97,609 42	
Pan Handle Br., over M. C., Sec. O							58,345 64	
C., M. & N. R. R. Br., over M. C., Sec. N		1,743 17		1,743 17			128,729 54	
C., M. & N. R. R. Br, over Kedzie Av., Sec. N		50 00		50 00			10,328 52	
Kedzie Av. Br., over M. C., Sec. N		13,336 15		13,336 15			34,404 78	
A., T. & S. F. R. R. Br., over M. C., Sec. N		2,114 50		2,114 50			51,603 70	
A., T. & S. F. R. R. Br., over M. C., Sec. G		286 72		286 72			81,418 98	
A., T. & S. F. R. R. Br., over D. R., Sec. F								
Lyons-Summit Road Br., over D. R., Sec. E		3,174 63		3,174 63			12,978 77	
Lyons-Summit Road Br., over M. C., Sec. E		5,312 40		5,312 40			12,693 95	
C. T. T. Ry. Br., over M. C., Sec. E		322 38		322 38			47,269 81	
C. T. T. Ry. Br., over D, R., Sec. E		390 00		390 00			390 00	
Willow Spgs. Highway Br., over M. C, Sec. 1		2,223 52		2,223 52			7,918 52	
A., T. & S. F. Br., over M. C., Sec. 8		2,591 00		2,591 00			24,256 60	
A., T. & S. F. Br., over D. R., Sec. 8		10,790 06		10,790 06			26,924 06	
Lemont Highway Br., over M. C., Sec. 8		3,643 39		3,643 39			5,693 39	
Lemont Highway Br, over D. R., Sec. 8							22,329 89	
Western Stone Co.'s Br., over D. R, Sec. 10							15,963 63	

CONSTRUCTION CONTRACTS, JANUARY 1, 1899.

Total.	Amount Paid to Date.	REMAINING TO BE EARNED.			REMAINING TO BE PAID ON VOUCHERS.		
		Main Channel.	Bridges.	Total.	Retained Percentages.	Unpaid Vouchers.	Total.
$ 143,922 46	$ 112,857 12	$ 167,734 61	.....	$ 167,734 61	$ 17,272 21	$ 13,793 07	$ 31,065 28
392,849 41	351,212 40	48,770 14	$ 732 16	49,502 30	41,576 89	60 12	41,637 01
204,116 30	177,812 81	56,322 40	.....	56,322 40	24,982 69	1,320 80	26,303 49
158,015 06	158,015 06	.....	.....	.....	.....	.....	.....
217,287 06	217,287 06	819 32	.....	819 32	.....	.....	.....
287,299 54	287,299 54	7,888 25	.....	7,888 25	.....	.....	.....
289,846 00	289,846 00	.....	.....	.....	.....	.....	.....
289,531 06	289,531 06	28,129 13	.....	28,129 13	.....	.....	.....
387,701 88	387,537 38	11,001 20	.....	11,001 20	164 50	.....	164 50
412,606 45	357,939 79	6,344 02	.....	6,344 02	46,819 91	7,846 75	54,666 66
720,743 94	621,216 79	74,238 13	.....	74,238 13	87,874 45	11,652 70	99,527 15
594,919 83	594,919 83	.....	.....	.....	.....	.....	.....
484,259 40	484,259 40	.....	.....	.....	.....	.....	.....
498,587 76	498,587 76	.....	.....	.....	.....	.....	.....
917,325 81	917,325 81	.....	.....	.....	.....	.....	.....
1,356,585 66	1,349,690 00	.....	.....	.....	6,179 83	715 83	6,895 66
940,975 86	940,975 86	.....	.....	.....	.....	.....	.....
841,291 35	841,291 35	.....	.....	.....	.....	.....	.....
1,058,638 66	1,058,638 66	.....	.....	.....	.....	.....	.....
755,860 92	755,860 92	.....	.....	.....	.....	.....	.....
742,193 37	742,193 37	.....	.....	.....	.....	.....	.....
797,495 93	797,495 93	.....	.....	.....	.....	.....	.....
1,000,962 28	1,000,637 28	9,942 66	.....	9,942 66	315 00	.....	315 00
819,424 30	819,424 30	.....	.....	.....	.....	.....	.....
1,009,136 70	1,009,136 70	.....	.....	.....	.....	.....	.....
841,571 92	841,571 92	.....	.....	.....	.....	.....	.....
860,549 99	860,549 99	.....	.....	.....	.....	.....	.....
819,388 19	819,388 19	.....	.....	.....	.....	.....	.....
921,457 10	921,457 10	.....	.....	.....	.....	.....	.....
552,033 46	552,033 46	.....	.....	.....	.....	.....	.....
38,631 23	33,335 50	26,910 00	.....	26,910 00	4,680 00	615 73	5,295 73
86,164 21	58,951 71	211,517 10	.....	211,517 10	10,732 75	16,479 75	27,212 50
19,158 58	15,317 40	131,597 20	.....	131,597 20	2,380 30	1,460 88	3,841 18
243,579 25	232,190 05	8,814 00	.....	8,814 00	11,389 20	.....	11,389 20
18,052 85	18,052 85	.....	.....	.....	.....	.....	.....
.....	.....	.....	19,495 87	19,495 87	.....	.....	.....
4,222 22	4,222 22	.....	8,444 45	8,444 45	.....	.....	.....
8,444 45	8,444 45	.....	16,888 88	16,888 88	.....	.....	.....
97,809 42	91,754 12	.....	55,329 37	55,329 37	4,161 47	1,693 83	5,855 30
58,345 64	58,345 64	.....	355,670 24	355,670 24	.....	.....	.....
128,729 54	125,923 46	.....	28,465 60	28,465 60	.....	2,806 08	2,806 08
10,328 52	9,759 02	.....	1,273 25	1,273 25	519 50	50 00	569 50
34,404 78	21,050 64	.....	8,526 00	8,526 00	.....	13,354 14	13,354 14
51,563 70	46,680 07	.....	17,572 45	17,572 45	.....	4,923 63	4,923 63
81,418 98	81,418 98	.....	20,416 00	20,416 00	.....	.....	.....
.....	.....	.....	19,321 80	19,321 80	.....	.....	.....
12,978 77	12,198 95	.....	.....	.....	147 95	631 87	779 82
12,638 95	10,700 03	.....	25,143 45	25,143 45	756 76	1,237 16	1,993 92
47,289 81	46,947 43	.....	.....	.....	.....	322 38	322 38
390 00	341 25	.....	14,428 65	14,428 65	48 75	.....	48 75
7,918 52	6,037 50	.....	14,900 00	14,900 00	.....	1,881 02	1,881 02
24,256 60	20,023 01	.....	83,328 30	83,328 30	1,995 34	2,238 25	4,233 59
35,924 06	16,134 00	.....	—4,962 03	—4,962 03	350 00	10,440 06	10,790 06
3,893 39	3,024 52	.....	15,365 35	15,365 35	687 44	1,981 43	2,668 87
22,329 89	22,329 89	.....	.....	.....	.....	.....	.....
15,383 63	15,383 63	.....	.....	.....	.....	.....	.....

VALUES— STATEMENT SHOWING CONDITION OF

Designation.	Amount earned during Dec., 1898.				Amount earned to date.			
	Main Channel.	Bridges.	General.	Total.	Main Channel.	River Diversion.	Bridges.	General.
Romeo Highway Br. over M. C., Sec. 12	.....	.....	.....	.....	.....	.....	.....	.....
Lockport Highway Br. over M. C., Sec. 16	.....	.....	.....	.....	.....	.....	.....	.....
Wire Mills Rd. Br., over M. C., Sec. 16	.....	.....	.....	.....	.....	.....	.....	.....
E., J. & E. R. R. Co.'s Br., N. of Joliet	.....	.....	.....	.....	.....	.....	$ 41,984 62	.....
Crib work at Joliet	.....	.....	.....	.....	.....	.....	.....	$32,140 [illegible]
Totals	$54,543 43	$67,597 33	.....	122,140 76	$ 18,589,885 36	$1,000,156 38	$795,902 34	$71,881 [illegible]

CONSTRUCTION CONTRACTS, JANUARY 1, 1899—*Continued.*

Total.	Amount Paid to Date.	REMAINING TO BE EARNED.			REMAINING TO BE PAID ON VOUCHERS.		
		Main Channel.	Bridges.	Total.	Retained Percentages.	Unpaid Vouchers.	Total.
.....	.....	.....	24,649 75	24,649 75	.....	.....	.....
.....	.....	.....	14,477 00	14,477 00	.....	.....	.....
.....	.....	.....	14,761 80	14,761 80	.....	.....	.....
41,984 62	41,984 62	.....	.....	.....	.....	.....	.....
32,140 89	32,140 89	.....	.....	.....	.....	.....	.....
$20,457,825 09	$20,099,284 67	$790,028 16	$754,227 84	$1,544,256 00	$263,034 94	$95,505 48	$358,540 42

QUANTITIES— STATEMENT SHOWING CONDITION OF CON

DESIGNATION.	AMOUNT DONE DURING DECEMBER, 1898.				TOTAL DONE TO		
	Main Channel.				*Main Channel.*		
	Glacial Drift. Cu. Yds	Solid Rock. Cu. Yds	Piles Lineal Feet.	Masonry and Concr't. Cu. Yds.	Glacial Drift. Cu. Yds.	Solid Rock. Cu Yds.	Retaining Wall. Cu. Yds.
Chicago River Improvement	70,500		1,600		586,750		
O					1,589,356		
N	9,679				870,429		
M					728,180		
L					1,102,980		
K					1,149,031		
I					1,159,384		
H					997,014		
G					1,356,614		
F	1,000	1,000			1,084,363	36,762	
E	9,998	6,869			1,873,268	157,195	
D					1,934,890	87,030	
C					1,881,545		
B					1,570,036	15,586	
A					2,560,648	13,312	
1					1,282,267	554,326	68,256
2					724,905	483,750	38,506
3					425,705	760,778	14,089
4					1,096,746	262,428	68,169
5					952,526	378,609	56,059.1
6					683,248	549,355	30,261.7
7					181,721	890,939	6,179.9
8					50,170	1,145,252.1	2,874.9
9					76,692	1,003,769	
10					31,743	1,141,890	
11					44,021	989,711	
12					44,030	998,709	9,286.94
13					33,810	1,033,665	10,838
14					380,165	1,022,796	23,567.8
15					35,324	647,039	44,811.2
16		1,200				96,000	
17	10,200	25,200			71,500	94,400	
18	3,400				64,200		
Disposal Works at Lockport						8,538	
Van Buren St. App. Span, Chicago R.							
S. W. Blvd. Bridge over M. C., Sec. O.					8,753.5		
Panhandle Bridge over M. C., Sec. O.							
C., M. & N. R. R. Co.'s Bridge over Main Channel, Sec. N	800			4.22	17,849		
C., M. & N. R. R. Co.'s Bridge over Kedzie Avenue, Sec. N					1,000		
Kedzie Avenue Bridge over Main Channel, Sec. N	1,721			18	7,101		
A., T. & S. F. R. R. Co.'s Bridge over Main Channel, Sec. N	233			116.36	7,445		
A., T. & S. F. R. R. Co.'s Bridge over Main Channel, Sec. G					85,253		
Lyons-Summit Road Bridge over Desplaines River, Sec. E	3,643				5,557		
Lyons-Summit Road Bridge over Main Channel, Sec. E	1,379		502	525	2,266		
C., T. T. R. R. Co.'s Bridge over Main Channel, Sec. E	1,194				4,748.1		
C., T. T. R.R. Co.'s Br. over Desplaines River, Sec. E	600				600		
Willow Springs Highway Bridge over Main Channel, Sec. 1	984			188.6	2,084		
A., T. & S. F. R. R. Co.'s Bridge over Main Channel, Sec. 8	13,600				88,415	1,020	
Lemont Highway Bridge over Main Channel, Sec. 8				320	2,006		
Romeo Highway Bridge over Main Channel, Sec. 12							
Lockport Highway Bridge over Main Channel, Sec. 16							
Wire Mills Road Bridge over Main Channel, Sec. 16							
E., J. & E. R.R. Co.'s Bridge, N. of Joliet							
Totals	128,931	34,269	2,102	1,163.74	26,856,338.6	12,372,859.1	372,949.34

* Retaining Wall.

STRUCTION CONTRACTS JANUARY 1, 1899.

DATE.				ESTIMATED REMAINING TO BE DONE.				PERCENTAGE COMPLETED.				
River Diversion.		Piles. Lineal Feet	Masonry and Concr't Cu. Yds.	*Main Channel.*				Main Channel Excava'n	River Divers'n. Exc.	Ret. Wall	Masonry and Concr't	Piles.
Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds.			Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds	Piles. Lin. Ft. & R. W.	Mas'y & Concr't Cu. Yds					
.....	.....	31,300	.....	71,100	.....	500	7,329	89.19	.....	....	00	98.43
.....	.....	.....	.....	233,679	.....	.....	.....	87.18	.....	....	.....	.....
.....	.....	.....	.....	244,880	.....	.....	.....	77.80	.....	....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	....	.....	.....
.....	.....	.....	.....	4,159	.....	.....	.....	99.62	.....	...	.....	.....
.....	.....	.....	.....	31,553	.....	.....	.....	97.33	.....	....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	....	.....	.....
.....	.....	.....	.....	96,997	.....	.....	.....	91.22	.....	....	.....	.....
.....	.....	.....	.....	39,290	.....	.....	.....	97.18	.....	....	.....	.....
179,447	.....	.....	.....	5,372	4,238	.....	.....	99.50	100	....	.....	.....
95,718	.....	.....	.....	45,766	42,805	.....	.....	88.40	100	....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	....	.....	.....
170,788	.....	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
212,486	.....	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
359,353	.....	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
174,655	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
119,234	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	100	.....	.....
105,803	17,857	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
12,256	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
118,647	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
97,917	43,102	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
57,902	99,399	.....	.....	.....	15,782	.....	.....	98.70	100	100	.....	.....
40,763	16,873	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
30,313	58,276	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
12,699	15,677	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
11,739	7,475	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	100	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	100	.....	.....
619	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
.....	.....	.....	.....	.....	69,000	.....	.....	58.18	.....	....	.....	.....
.....	.....	.....	.....	215,970	234,160	.....	.....	28.63	.....	....	.....	.....
.....	.....	.....	.....	176,485	.....	*6,300	800	26.68	.....	00	00	.....
.....	.....	.....	11,387.8	.....	1,567	.....	.....	100	.....	....	100	.....
.....	.....	.....	.....	2,800	.....	.....	784	00	.....	....	00	.....
.....	.....	10,813	4,431.94	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	.....	.....	23,000	.....	29,600	14,360	00	.....	....	00	00
.....	.....	5,948	4,236.77	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	.....	503	909	.....	.....	92.69	52.38	.....	....	84.54	.....
.....	.....	.....	2,886.84	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	4,544	2,489.36	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	5,748	2,929.03	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	.....	793.3	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	1,501	525	104	.....	2,499	1,459	95.61	.....	....	26.48	37.53
.....	.....	1,166.5	2,162.79	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	.....	.....	372	.....	1,000	652	61.73	.....	....	00	00
.....	.....	400	598.6	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	.....	817.07	40,705	.....	.....	.....	68.48	.....	....	100	.....
.....	.....	.....	400	.....	.....	.....	60	.....	.....	....	86.95	.....
.....	.....	.....	.....	.....	153	.....	1,082	00	.....	....	00	.....
.....	.....	.....	.....	.....	326	.....	460	00	.....	....	00	.....
.....	.....	.....	.....	.....	170	.....	465	00	.....	....	00	.....
.....	.....	.....	1,041.84	.....	.....	.....	.....	.....	.....	....	100	.....
1,339	258,659	61,480.5	35,193.34	1,232,071	368,201	33,599	27543.69	96.08	100	98.34	56.1	64.64

TAX LEVY FOR 1899.

Mr. Carter, Chairman of the Committee on Finance, presented and the Clerk read an ordinance levying the taxes for the year 1899 for the corporate purposes of the District.

Mr. Carter, seconded by Mr. Kelly, moved that the ordinance be adopted.

On roll-call the vote stood: Yeas—Messrs. Carter, Eckhart, Kelly, Mallette, Smyth and Wenter—six. Nays—none.

Upon this result the Chairman declared the motion carried.

The following is

THE ORDINANCE:

"*Be it ordained by the Board of Trustees of the Sanitary District of Chicago:*

SECTION 1. That there be and hereby is levied and assessed on the real and personal property within the Sanitary District of Chicago, subject to taxation according to the valuation of said property as the same is assessed and equalized for State and county purposes for the year 1899, one and one-half per centum of the value thereof; the taxes levied and assessed under this ordinance being for the corporate purposes of the Sanitary District of Chicago.

SECTION 2. The Clerk of the District is hereby directed to certify on or before the second Tuesday of August, 1899, to the County Clerk of Cook County, the amount required to be raised by tax pursuant to this ordinance, and to that end to file with the said County Clerk a copy of this ordinance.

SECTION 3. This ordinance shall take effect and be in force from and after its passage."

ADJOURNMENT.

On motion of Mr. Kelly, seconded by Mr. Wenter, the Board then adjourned.

Joseph F. Haas

Clerk.

PROCEEDINGS

—OF THE—

BOARD OF TRUSTEES

—OF THE—

SANITARY DISTRICT OF CHICAGO.

MARCH 1, 1899.

OFFICIAL RECORD.

Published by authority of the Board of Trustees of the Sanitary District of Chicago.

REGULAR MEETING.

The four hundred and twenty-eighth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Wednesday, March 1, 1899, at 2 o'clock P. M.

On roll-call Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Smyth and Wenter—eight members, were present.

President Boldenweck then called the Board to order.

MINUTES.

The minutes of the adjourned meeting held February 23, 1899, were approved as printed, on motion of Mr. Kelly, seconded by Mr. Eckhart.

VOUCHERS.

The Clerk presented the following vouchers:

PAY ROLLS.

Engineering Department (Chief Engineer's Roll, February, 1899).....	$ 841 67	
Engineering Department (Division of Construction Roll, February, 1899)	5,091 73	
Engineering Department (Division of Drafting and Designing Roll, February, 1899).....	1,654 00	
Engineering Department (Division of Records Roll, February, 1899)...	682 00	
		$ 8,269 40

Clerical Department (Clerk's Roll, February, 1899)		$ 1,033 33
Law Department (Attorney's Roll, February, 1899)	$ 1,433 34	
Law Department (Joliet Roll, February, 1899)	458 34	
		$ 1,891 68
Treasury Department (Treasurer's Roll, February, 1899)		166 66
General Account (General Roll, February, 1899)	$ 170 00	
General Account (Trustees' Roll, February, 1899)	2,333 33	
		$ 2,503 33
Police Department (Marshal's Roll, February, 1899)		2,470 72
Maintenance Account (Pumping Plant Roll, February, 1899)		585 00
Total		16,920 12

ENGINEERING DEPARTMENT.

J. R. Davis (test pits)	$ 163 00

LAW DEPARTMENT.

John S. Runnels (services, General Counsel, February, 1899)	$ 416 66
Grand total	$17,499 78

*To be paid by warrants with interest coupons attached, drawn against the Tax Levy for 1899.

Mr. Carter, seconded by Mr. Wenter, moved that the vouchers as read and shown above be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly and Wenter—seven. Nays—none.

Upon this result the President declared the motion carried.

WEEKLY REPORT ON EMPLOYES.

The Clerk presented a report in accordance with the rules, showing the number of persons in the employ of the District for the week ending February 25, 1899, which was read and by unanimous consent was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, March 1, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the week ending February 25, 1899, as the same have been reported to me:

Engineering department	77
Maintenance account	8
Legal department	5
Law department	8
Treasury department	1
Police department	29
Telephone operator	1
Total employes	129

Respectfully submitted,

(Signed) JOSEPH F. HAAS,

Clerk."

REPORT IN REFERENCE TO EXECUTION OF AGREEMENT WITH THE JOLIET RAILROAD COMPANY FOR CROSSING THE DESPLAINES RIVER AT JEFFERSON STREET, JOLIET.

The Clerk presented and read a report transmitting the agreement with the Joliet Railroad Company in regard to the matter of affording a temporary crossing of the Desplaines River at Jefferson street, in the City of Joliet, for the tracks of the said company, the report setting forth that the said agreement has been duly executed by the said company and also by the President and Clerk, as authorized by the Board, at the meeting held January 25, 1899, (page 5442 of the Proceedings) and a duplicate copy of same delivered to said company, and therefore recommending that the said agreement be printed and placed on file.

Mr. Kelly, seconded by Mr. Braden, moved that the report be received and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Kelly and Wenter—six. Nays—none. Excused and not voting—Mr. Jones—one.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, March 1, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I herewith transmit the agreement dated January 16, 1899, between the Sanitary District of Chicago and the Joliet Railroad Company, in regard to the matter of affording a temporary crossing of the Desplaines River at Jefferson street in the City of Joliet for the tracks of said company, the same having been duly executed by the said Railroad Company and also by your President and Clerk as authorized by the Board of Trustees at the meeting held January 25, 1899, (page 5442 of the Proceedings) and a duplicate copy of same, duly executed, delivered to said company, and I therefore recommend that said agreement be printed and placed on file.

Respectfully submitted,

JOSEPH F. HAAS,

Clerk."

(Accompanied by agreement).

The following is

THE AGREEMENT:

This agreement, made and entered into this 16th day of January, A. D., 1899, by and between the Sanitary District of Chicago, a corporation duly organized and existing under and by virtue of the laws of the State of Illinois, and the Joliet Railroad Company, a corporation also organized and existing under the laws of the State of Illinois; witnesseth, it,

WHEREAS, The said Sanitary District of Chicago, who will be hereafter known as the party of the first part to this contract, has heretofore, pursuant to the Act authorizing the creation of said Sanitary District of Chicago, laid out its Main Channel, adjuncts, outlets, and other appendages and works by it authorized by virtue of said Act, from the said City of Chicago, down, to and through the City of Joliet, in the County of Will and State of Illinois; and,

WHEREAS, The Channel, adjuncts and tail races of the said Sanitary District passes through what is known as the upper and lower basins of the Illinois and Michigan Canal, and through the former bed and into the present bed of the Desplaines River, which passes in a southerly direction through the said City of Joliet; and,

WHEREAS, At a street known as Jefferson Street, in said City of Joliet, said Desplaines River is crossed by an arched stone bridge commonly known as the Jefferson Street Bridge in said City of Joliet; and,

WHEREAS, The said Joliet Railroad Company, which will be hereafter known and called as the party of the second part to this contract, has heretofore laid down and now has a street railway on said Jefferson Street extending and passing over and across the said Jefferson Street Bridge, said street railroad having been heretofore laid out and being now maintained pursuant to lawful authority to it granted by said City of Joliet to so lay down and maintain its said street railway. and

WHEREAS, Also by an ordinance of the said City of Joliet, the said party of the first part has heretofore been granted permission and authority to remove the said Jefferson Street Bridge and replace the same by another and different structure (reference being hereby made to said ordinance for greater certainty in the event that the same should become necessary as to the character of said structure and the right to remove the said existing bridge and replace the same as aforesaid); and,

WHEREAS, In the removal of said present Jefferson Street Bridge and replacing the same by the said other and different bridge or structure, it will be necessary to remove temporarily and change and alter the existing tracks and trolley wires of the said party of the second part; now,

THEREFORE, The said party of the second part does by these presents, in consideration of the sum of one dollar and other good and valuable consideration to it in hand paid, the receipt whereof is hereby acknowledged, grant permission to the said party of the first part to move and shift the present track and trolley wires in the manner following and subject to the following conditions: The said party

of the second part shall with its own men and appliances upon request, shift the said track, poles and trolley wires from where they are now laid near the center of said bridge to such side of said bridge, either north or south, as the said party of the first part may direct, and leave the same so shifted for such length of time as to permit the party of the first part to take away and remove the one-half of said bridge upon which said track is not laid or placed, and replace the same by a suitable structure so as to permit the said track of the said party of the second part to be moved and shifted from the remaining half of said bridge over and on to said new structure, and to leave the same so upon said new structure until such time as the new bridge is entirely completed, and then to remove or shift said track and trolley wires to the center of said new structure, or to such part of said new structure as the said party of the second part and the said City of Joliet shall conclude is the proper place for it to be permanently placed; the cost of said removal of tracks, trolley wires, etc., from place to place and shifting the same to be entirely borne by the said Sanitary District of Chicago; and that the said party of the first part shall also, in addition to paying the cost of shifting or removing said track and trolley wires, as aforesaid, also bear the cost of repaving the said bridge and necessary approaches thereto, between the rails of the said party of the second part, with the same style and character of pavement as the remainder of said bridge shall be paved, and as the party of the first part has agreed to pave the same in its contract with the City of Joliet.

It is further agreed by and between the parties to this contract, that should the said party of the first part deem it advisable and expedient, instead of leaving the said track of the said party of the second part upon any portion of said bridge during the removal of the same and the construction of the new bridge, to shift the same either to the north or south of the present bridge, on a line substantially parallel with the existing bridge, and carry the same across the river upon trestles or such other temporary structure as may be deemed advisable and proper, that the said party of the second part, upon such trestle work being properly and suitably constructed, or such temporary structure being properly built and completed, will, at the expense of the party of the first part, move and shift said track over to and upon such temporary structure, and permit the same to remain there until the removal of the present bridge and the construction of the proposed new bridge,; that then the party of the second part will, at the expense of the party of the first part, replace its track upon the new bridge or structure, the party of the first part to pay the necessary expense for so doing.

It is further agreed by and between the parties to this contract, that should the shifting of said tracks and the moving of the same and the said trolley wires to either a portion of said bridge or upon said proposed trestle work or temporary structure, cause an interruption of the traffic of the said party of the second part for a period of twelve hours, that then the said party of the first part shall make good all loss or damage which the said party of the second part shall sustain by reason of such interruption of traffic, such damages, however, to be limited to the actual loss as shown by a statement to be presented by the party of the second part of the income from traffic of said railroad of the said party of the second part, to be based upon the average earnings of the said street railway company on the said lines known as the "West Side Lines," for the three months next preceding such interruption; and the said party of the first part shall have access to the books of the said party of the second part for the purpose of verifying such statement of loss or damage so presented by the said party of the second part.

It is further agreed by and between the parties to this contract, that the said party of the first part shall hold the said party of the second part harmless from all loss, or damages, or costs which it may sustain by reason of the insufficiency of any of the structures herein proposed to be built or provided by it for the accommodation of the said street railway company's track during the period of the removal of the present bridge and the construction of the proposed new bridge, and that in the event of any suit being brought against the said party of the second part for any loss or damages occasioned to either persons or property by the insufficiency or imperfection of the temporary structures furnished and completed by the said party of the first part for the accommodation and use of the said party of the second part by its said railway track, that it will intervene in said suit, and at its own cost defend the same and pay whatever judgment and costs may be rendered in said cause for such loss or damage

to either persons or property so occasioned as aforesaid.

The said party of the second part agrees upon ten days notice in writing to it to commence changing and removing of the said tracks to the place where the Engineer of the party of the first part may direct, and after so commencing said work to proceed with a sufficient force of men and appliances, and as speedily as practicable make such removal so as not to interfere with the works of the employes or contractors of the said party of the first part.

The above and foregoing contract to be binding upon the successors and assigns of the respective parties to the same.

In Witness Whereof, The said Sanitary District of Chicago, party of the first part, has caused this contract to be executed in duplicate by its President and attested to by its Clerk, under the seal of said party of the first part; and the said party of the second part in like manner has caused this contract to be executed in duplicate by its President and attested to by its Secretary, under the seal of said party of the second part.

SANITARY DISTRICT OF CHICAGO,

[SEAL] By WILLIAM BOLDENWECK

Attest: *President.*

JOSEPH F. HAAS,

Clerk.

JOLIET RAILROAD COMPANY,

[SEAL] By W. F. MILLIKEN,

Attest: *President.*

EDWARD WOODMAN,

Asst. Secretary.

INTEREST ON 1899 TAX LEVY WARRANTS.

Mr. Carter, Chairman, presented a report with reference to and accompanied by an ordinance providing for the payment of interest upon the warrants of the District drawn against the Tax Levy 1899 and limiting issuance of said arrants to an amount not to exceed 75 er centum of the amount of the tax vy allowed by law; the report recommending the adoption of said ordinance.

Mr. Carter, seconded by Mr. Kelly, oved that the report be adopted.

On roll-call the vote stood: Yeas—lessrs. Boldenweck, Braden, Carter, ckhart, Jones, Kelly and Wenter—ven. Nays—none.

Upon this result the President declared the motion carried.

Mr. Carter, seconded by Mr. Jones, then moved the passage of the accompanying ordinance.

On roll call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly and Wenter—seven. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, March 1, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN:—Your Committee on Finance submits herewith an ordinance providing for the payment of interest upon all warrants of the District drawn against the Tax Levy of 1899. Said warrants to issue not to exceed the extent of seventy five per centum (75%) of the amount of tax levy allowed by law.

Your Committee respectfully recommends the adoption of the accompanying ordinance.

Respectfully submitted,

(Signed) Z. R. CARTER,

Chairman.

B. A. ECKHART,

FRANK WENTER,

THOMAS KELLY,

ALEX. J. JONES,

Committee on Finance."

The following is the

ORDINANCE.

"*Be it ordained by the Board of Trustees of the Sanitary District of Chicago:*

SECTION 1. That all warrants of the Sanitary District of Chicago drawn against the Tax Levy of 1899, as heretofore made and fixed by ordinance of date of February 23, 1899 (page 5496 of Proceedings), shall bear interest from the date of issue. Said warrants to issue not to exceed the extent of 75 per centum of the amount of tax levy allowed by law.

SECTION 2. This ordinance shall take effect and be in force from and after its passage."

REPORT IN REFERENCE TO AUDIT OF BOOKS OF CLERICAL AND TREASURY DEPARTMENTS.

Mr. Carter, Chairman, presented and the Clerk read a report from the Committee on Finance, setting forth that the Committee have had the books of the Clerical Department for the years 1896-7 8 and of the Treasury Department for the year 1898 audited and find same to be correct.

Mr. Carter, seconded by Mr. Kelly, moved that the report be approved, printed and placed on file.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly and Wenter—seven. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, March 1, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN:—The Committee on Finance reports herewith that they have had the books of the Clerical Department for the years 1896, 1897 and 1898, and the Treasury Department for the year 1898, audited, and find same to be correct.

Respectfully submitted,

(Signed) Z. R. CARTER,
Chairman.
THOS. KELLY,
FRANK WENTER,
B. A. ECKHART,
ALEX. J. JONES,
Committee on Finance."

REPORT IN REFERENCE TO LEASE OF OFFICES.

Mr. Carter, Chairman, presented a report from the Joint Committee on Finance and Engineering with reference to and accompanied by form of lease of premises now occupied by the District in Security Building for the term of one year from May 1, 1899, the report recommending that the President and Clerk be authorized and directed to execute said lease in the form submitted as soon as the same shall have been executed by the Security Deposit Company and also directing that the Clerk notify said company immediately of the action of the Board in the premises.

Mr. Carter, seconded by Mr. Smyth, moved that the report be adopted, and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly and Wenter—seven. Nays—Mr. Smyth—one.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, Feb. 23, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN:—Your Joint Committee on Finance and Engineering desires to make report to your Honorable Body that the Clerk of the District has transmitted to it a copy of the draft of lease of the premises now occupied by the District and its several departments in the Security Building for the term of one (1) year from May 1, 1899, to April 30, 1900, and that the Committee has examined the provisions of said lease and become satisfied of the propriety and correctness thereof, and advises your Honorable Body that the Committee deems it expedient and for the best interests of the District to renew the lease now expiring for the term of one (1) year, as aforesaid: that the same rental charges will be continued in the new lease and additional room and privileges be granted to the District in the premises.

Your Committee, therefore, recommends that the President and Clerk of the District be authorized and directed to execute on behalf of the District said lease in the form submitted, as soon as the same shall have been executed by the Security Deposit Company, and that the Clerk of the District be directed to notify said company immediately of the election of the District to retain the premises now occupied for the term, as aforesaid.

Respectfully submitted,

(Signed) Z. R. CARTER,
Chairman.
THOMAS A. SMYTH,
JOS. C. BRADEN,
THOMAS KELLY,
FRANK WENTER,
ALEX. J. JONES,
B. A. ECKHART,
WM. BOLDENWECK,
Joint Committee on Finance and Engineering."

(Three Enclosures.)

REPORT IN REFERENCE TO FINAL CERTIFICATE ON CONTRACT FOR SECTION O.

Mr. Smyth, Chairman, presented and the Clerk read a report from the Committee on Engineering with reference to, and accompanied by, the final certificate and voucher of the Chief Engineer in favor of McMahon & Montgomery Company, contractors for Section O, the report calling attention to certain portions of the work not yet completed, and recommending that the President and Clerk be authorized and directed to pay said contractors the sum of $50,059.65, the sum found to be due on the final certificate, and also to make payment in the further sum of $1,278.87 for work done by said contractors in dismantling and remantling of dredges on said section, said payments to be made on the filing of a new bond in the sum of $25,000 for the completion and unwatering of said section, as per contract, or the acceptance in writing by the bondsmen under the existing bond.

Mr. Smyth, seconded by Mr. Braden, moved that the report be adopted and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Jones, Kelly, Smyth and Wenter—seven. Nays—none. Excused and not voting—Mr. Eckhart—one.

Upon this result the President declared the motion carried.

The following is

THE COMMITTEE REPORT:

CHICAGO, February 27, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Your Committee on Engineering, to whom was referred at the meeting of the Board of Trustees held on February 23, 1899 (page 5481 of the Proceedings) the final certificate and voucher of the Chief Engineer of the District in favor of McMahon & Montgomery Company et al., contractors for ection O of the Main Channel, desires erewith to make report that the Committee has examined the several matters ontained in said final certificate and nds therefrom as follows:

That Section O of the Main Channel as been entirely completed by said contractors, except in so far as the right of ray necessary to the entire completion hereof has not been fully provided for, nd except as to their continuing obligation, under bond, to unwater said section if directed. The Collateral Channel provided for in Section 7 of Clause D of said contract, has not been completed for the same reason. There is a voucher in the sum of twelve hundred seventy-eight and eighty-seven hundredths ($1,278.87) dollars due said contractors for the dismantling and remantling of dredges used on said section. That there is due upon said final certificate the sum of fifty thousand fifty-nine and sixty-five hundredths ($50,059.65) dollars for work upon said section. That several claims for extras have been filed with the Chief Engineer of the District for work done upon said section.

The Committee recommends that the President and Clerk of the District be authorized and directed to execute their warrant and make payment to said contractors on behalf of the District in the sum of fifty thousand fifty-nine and sixty-five hundredths ($50,059.65) dollars, the sum found to be due in the final certificate of the Chief Engineer hereto attached; and also to make payment in the further sum of twelve hundred seventy-eight and eighty-seven hundredths ($1,278.87) dollars, this being voucher of the Chief Engineer of the District in favor of said contractors for the work done by them in the matter of dismantling and remantling of dredges on said Section in said work; these payments to be made upon the filing of a new bond in the sum of twenty-five thousand dollars ($25,000) for the completion and unwatering of said section, as per contract or the acceptance in writing by the bondsmen under the existing bond.

Respectfully submitted,

(Signed) THOMAS A. SMYTH,
Chairman.
JOS. C. BRADEN,
THOMAS KELLY,
Z. R. CARTER,
FRANK WENTER,
ALEX. J. JONES.
Committee on Engineering.

(One enclosure.)

The following is

THE FINAL CERTIFICATE OF THE CHIEF ENGINEER.

"CHICAGO, February 23, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I hereby certify that the

McMahon & Montgomery Company, et al., contractors for Section "O" of the Main Channel, with the exceptions hereinafter noted, have completed the work covered by their contract dated May 16th, 1894, including the several orders issued under the "extra work clause" thereof, in accordance with the terms of the said contract and to the satisfaction of the Chief Engineer. The entire excavation of the Main Channel has not been completed, and the same is true of the Collateral Channel, provided for in Section 7 of Clause D of the contract, but for this failure to complete the work designated these contractors cannot be held derelict, because the right of way necessary to its completion has not been provided by the Sanitary District. These contractors have never performed the obligation of the contract provided in Section 7a of Clause D of the contract, but this failure has not been a source of loss or damage to the Sanitary District. These contractors also failed to comply with the order of the Chief Engineer dated January 20th, 1898, thereby delaying the adjustment of questions then at issue, and deferring the final payments for work done as provided in the said order.

And further, the order of the Chief Engineer dated July 11, 1898, was executed in part only.

This final certificate is given subject to any unaccrued or unmatured obligations or covenants of the contract.

The volumes and values of the work done upon this section are covered by the final voucher, and are as follows:

Main Channel Glacial Drift, 1,427,031 cu. yds. at 21c		$299,676 51
Surface Ditches, Glacial Drift, 13,991 cu. yds. at 21c		2,938 11
Enlarged Main Channel, Glacial Drift, 84,976 cu. yds. at 21c		17,844 96
Collateral Channel, Glacial Drift, 104,514 cu. yds. at $0.199		20,798 29
Total amount earned		$341,257 87
Amount deducted account non-removal of spoil bank, 8,000 yds. at 2c	$ 160 00	
Total amount paid	291,038 22	
Deduction as above and total amount paid		291,198 22
Total amount due and unpaid		$ 50,059 65

Besides the volumes and values scheduled in the final certificate, these contractors have performed, under the orders of the Chief Engineer, given in accordance with the extra work clause of their contract, the following additional work:

Excavation, Pan Handle Bridge foundations. (Final voucher rendered March 20, 1896)	$ 3,984 54
Construction, Pan Handle, 80-ft. girder. (Final voucher rendered September 22, 1896)	21,393 40
Excavation, dredge pit through Pan Handle embankment. (Final voucher rendered May 15, 1897)	4,300 66
Moving of plant under Pan Handle Bridge. (Final voucher rendered July 29, 1897)	2,232 85
Construction, Western Avenue Temporary Bridge. (Final voucher rendered October 26, 1897)	2,596 22
Moving old Western Avenue Temporary Bridge. (Final voucher rendered October 30, 1897)	200 00
Pulling piles at Western Avenue Temporary Bridge. (Final voucher rendered November 13, 1897)	100 00
Construction, Pan Handle Temporary Bridge. (Final voucher rendered September 16, 1898)	14,226 39
Extra price for excavation, account Pan Handle Permanent Bridge. (Final voucher rendered December 1, 1898)	2,309 76
Construction, two coffer dams, account Pan Handle Permanent Bridge. (Final voucher rendered December 1, 1898)	2,000 00
Total amount earned and paid under "Extra Work" clause	$53,343 82

Respectfully submitted,

(Signed) ISHAM RANDOLPH,

Chief Engineer."

REPORT ON AMENDMENT TO RULES.

On behalf of the Committee on Rules, Mr. Jones presented a report in reference to the consideration of Rules 13 and 14 of the Rules and Regulations of the Board, the report recommending certain amendments to said Rules 13 and 14, as set forth in the report.

By unanimous consent the report was ordered printed, and in accordance with the rules, consideration of the same was laid over for one week.

The following is

THE REPORT:

"CHICAGO, March 1, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN:—Your Committee on

Rules, having had under consideration Rules 13 and 14 of the Rules and Regulations of the Board of Trustees of the Sanitary District of Chicago, and having duly considered the duties of the Clerical and Treasury Departments with reference to said rules, respectfully recommend that said Rules 13 and 14 be amended by your Honorable Body so as to read as follows:

13. The Committee on Finance shall examine and approve all bills and vouchers before they are acted upon by the Trustees prior to each regular meeting of the Board. If any bills or vouchers are not approved by the Committee, the reasons therefor shall be reported to the Board.

14. The Board of Trustees, may, however, in its discretion, order the payment of any bills or vouchers without reference of the same to the Committee on Finance; but in such cases it shall be the duty of the Clerk to properly endorse on the bill or voucher the authority for its payment.

Respectfully submitted,

(Signed) WM. BOLDENWECK,
Chairman,
ALEX. J. JONES,
JOS. C. BRADEN,
THOMAS KELLY,
Committee on Rules."

COMPILATION OF RULES AS AMENDED.

Mr. Jones, seconded by Mr. Smyth, moved that the Committee on Rules be authorized to have printed a compilation of the Rules, embracing all amendments to date.

On roll call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Smyth and Wenter—eight. Nays—none.

Upon this result the President declared the motion carried.

COMMUNICATION IN REFERENCE TO RELEASE OF JUDGMENT AGAINST FRANCES LIVINGSTON.

The Clerk presented and read a communication from Messrs. Stein & Platt, asking that the Board release a certain judgment for $156.67, heretofore obtained against Frances Livingston.

Mr. Jones, seconded by Mr. Wenter, moved that the same be referred to the Committee on Judiciary with power to act.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Smyth and Wenter—eight. Nays—none.

Upon this result the President declared the motion carried.

REPRINTING OF FIRST VOLUME OF PROCEEDINGS.

Mr. Wenter, seconded by Mr. Jones, moved that the Committee on Rules be authorized to receive bids for, and have printed, 500 copies of the first volume of the Proceedings of the Sanitary District of Chicago, embracing the period from January 18, 1890, to December 31, 1891.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Smyth and Wenter—eight. Nays—none.

Upon this result the President declared the motion carried.

ADJOURNMENT.

On motion of Mr. Kelly, seconded by Mr. Carter, the Board then adjourned.

Joseph F. Haas
Clerk.

PROCEEDINGS

—OF THE

BOARD OF TRUSTEES

—OF THE—

SANITARY DISTRICT OF CHICAGO.

MARCH 8, 1899.

OFFICIAL RECORD

Published by authority of the Board of Trustees of the Sanitary District of Chicago.

REGULAR MEETING.

The four hundred and twenty-ninth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Wednesday, March 8, 1899, at 2 o'clock P. M.

On roll-call Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—nine members, were present.

President Boldenweck then called the Board to order.

MINUTES.

The minutes of the regular meeting held March 1, 1899, were approved as printed, on motion of Mr. Kelly, seconded by Mr. Braden.

*VOUCHERS.

The Clerk presented the following vouchers:

ENGINEERING DEPARTMENT.

e Chicago Towel Supply Company (toweling, February, 1899) ..... $	6 65
arke & James (photo supplies)	17 50
& H. T. Anthony & Co. (photo supplies)	11 92
Seelig (repairing instruments)	8 00
rerar, Adams & Co. (hardware)	3 75
oodrich & Potter Company (repairing timer)	12 50

Wygant & Ayres (rent, Corwith, December, 1898)	$ 12 50	
J. H. Alexander (rent, Lockport, February, 1899)	17 00	
Samuel L. Hanks (ice, February, 1899)	11 50	
P. F. Pettibone & Co. (stationery)	49 33	
Cameron, Amberg & Co. (stationery)	8 04	
A. H. Abbott & Co. (drafting supplies)	26 29	
Keuffel & Esser Co. (drafting supplies)	21 50	
Eugene Dietzgen Company (drafting supplies)	15 56	
Marshall Field & Co. (sundries)	4 00	
Hibbard, Spencer, Bartlett & Co. (hardware)	9 86	
W. H. Salisbury & Co. (rubber boots)	8 25	
Soper Lumber Company (pine stakes)	12 00	
Geo. B. Carpenter & Co. (sundries)	5 01	
D. H. Preston & Co. (coal)	4 00	
G. M. Wisner (expense, January, 1899)	28 08	
G. M. Wisner (expense, February, 1899)	18 48	
H. B. Alexander (expense)	34 10	
The Gunthorp-Warren Printing Company (printing)	77 00	
J. R. Davis (test-pits)	156 00	
W. M. Hughes (services, Consulting Engineer)	125 00	
W. M. Hughes (Belt Railway Bridge plans)	850 00	
Robt. W. Hunt & Co. (inspection of iron and steel)	344 93	
Pittsburgh Testing Laboratory Co., Ltd. (inspection of iron and steel)	268 97	
Isham Randolph (traveling)	98 71	
		$ 2,266 43

CLERICAL DEPARTMENT.

A. P. Little (stationery)	$ 2 50	
The Chicago Towel Supply Company (toweling, February, 1899)	2 50	
Samuel L. Hanks (ice, February, 1899)	2 50	
Western Bank Note and Engraving Company (letter heads)	14 00	
		$ 21 50

LAW DEPARTMENT.

Samuel L. Hanks (ice, January, 1899)	$ 2 50	
The Chicago Towel Supply Company (toweling, January, 1899)	1 50	
White Rock Mineral Spring Company (water)	3 75	
Edward Thompson Company (law book)	6 00	
J. L. O'Donnell (water tax, Joliet)	10 69	
Callaghan & Co. (law reports)	18 00	
Peck, Miller & Starr (services)	1,501 90	
		$ 1,544 34

LAND ACCOUNT.

John O'Connor (abstracts)	$ 363 50	
Fernando Jones (title researches)	225 00	
		$ 588 50

GENERAL ACCOUNT.

The Merle & Heany Manufacturing Company (desk)	$ 25 00	
The Engineering News Publishing Company (advertising)	48 00	
The Engineering Record (advertising)	47 60	
The Chicago Chronicle Company (advertising)	45 60	
The Construction News Company (advertising)	34 35	
American Contractor Publishing Company (advertising)	27 75	
Calumet Publishing Company (advertising)	10 50	
Chicago Journal (advertising)	15 75	
The Inter Ocean (advertising)	18 45	
ph F. Haas, Clerk (expense)	46 05	
on's Livery Stable (livery)	6 75	
s Trust Safety Deposit Company (rent of vault)	45 00	

Isham Randolph (traveling and expense)	$ 82 30	
Security Deposit Company (rent, March, 1899)	483 33	
The Audit Company (expert accountants)	560 00	
		$ 1,496 43

POLICE DEPARTMENT.

Mrs. A. Hartwig (laundry)	$ 4 00	
D. C. McCarthy (expense)	5 06	
E. J. Coen (expense)	29 15	
		$ 38 21

MAINTENANCE ACCOUNT.

Heggie Bros. (boiler repairs)	$ 4 10	
Dearborn Drug and Chemical Works (boiler compound)	38 25	
Barrett Hardware Company (hardware)	31 44	
Isham Randolph (boiler repairs)	57 85	
H. B. Alexander (expense)	72 70	
Weaver Coal Company (coal)	241 55	
		$ 445 89

CONSTRUCTION ACCOUNT.

Mason, Hoge, King & Co. (Section 8, railroad embankment, etc., March 1, 1899)	$ 1,223 25	
Heldmaier & Neu (Section 17, March 1, 1889)	16,114 88	
Gahan & Byrne (Section 18, March 1, 1899)	9,531 72	
Lydon & Drews Company (repairing docks)	2,194 50	
Lydon & Drews Company (By-pass, Chicago River)	1,751 70	
McArthur Bros. Co. and Winston & Co. (Summit-Lyons Road bridge)	3,746 58	
Hayes Bros. (Wire Mills Road Bridge)	1,402 62	
Griffiths & McDermott (Lockport Highway bridge)	1,672 69	
Sackley & Peterson (Section 7, pumping)	300 00	
Geo. M. Huss (Belt Railway Bridge)	647 64	
P. T. Dunn & Co. (Lockport temporary road)	14 00	
The P., C., C. & St. L. Ry. Co. (P. H. temporary bridge)	85 40	
Chicago Terminal Transfer Railroad Company (P. H. temporary bridge)	100 90	
Chicago Terminal Transfer Railroad Company (P. H. temporary bridge)	107 87	
The A., T. & S. F. Ry. Co. (Section 8, bridge)	85 88	
The A., T. & S. F. Ry. Co. (Section G, bridge)	312 21	
Chicago Junction Railway Company (Section O—P. H. bridge)	161 59	
City of Chicago (water tunnel changes at Adams Street)	3,278 68	
		$42,732 11
Grand total		$49,133 41

*To be paid by warrants, with interest coupons attached, drawn against the tax levy for 1899, as follows:

F. M. Blount, Treasurer (sundry persons, less than $50)	$ 892 56
Construction Account, to contractors	42,732 11
All others, direct to creditors	5,508 74
	$49,133 41

. Carter, seconded by Mr. Wenter, ed that the vouchers, as read and vn above, be approved and ordered .

roll-call the vote stood: Yeas— srs. Boldenweck, Braden, Carter, hart, Jones, Kelly, Mallette, Smyth Wenter—nine. Nays—none.

pon this result the President de- ed the motion carried.

WEEKLY REPORT ON EMPLOYES.

The Clerk presented a report, in accordance with the Rules, showing the number of persons in the employ of the District for the week ending March 4, 1899, which was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, March 8, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the week ending March 4, 1899, as the same have been reported to me:

Engineering department	77
Maintenance account	8
Clerical department	5
Law department	8
Treasury department	1
Police department	29
Telephone operator	1
Total employes	129

Respectfully submitted,

(Signed) JOSEPH F. HAAS,
Clerk."

MONTHLY REPORT FROM ENGINEERING DEPARTMENT.

The Clerk presented a report from the Engineering Department for the month of January, 1899, which, by unanimous consent, was ordered printed and placed on file

The following is

THE REPORT:

"CHICAGO, Feb. 28, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I herewith transmit the report of the Engineering Department for the month of January, 1899, giving the detailed operations of the several divisions constituting the same.

The value of the construction work done during the month was $164,301.69, divided as follows; Main Channel, $69,429.91; bridges, $94,871.78. The engineering expenses for the month were $9,174.37, divided as follows: Salaries, $8,383.56; supplies, etc., $790.81. Details of the above figures are given in tabulated statements herewith.

DIVISION OF CONSTRUCTION.

The weather during the month was not very favorable to good progress of the work. Rain or snow was recorded on six days and the temperature varied from 43 degrees to —4 degrees Fahrenheit.

Chicago River Improvement—The work on the By-pass along the Chicago Rive for the month was as follows: Three thousand four hundred and fifty cubic yards of excavation were removed from the Adams Street By-pass by means of shovelers, cars and an elevator on which the cars were run. The material excavated was dumped into the river and is removed from time to time by means of a dredge and scows and deposited in the lake.

The coffer dam at the north end of Jackson Street By-pass was completed during the month with the exception of the filling, and considerable work was done on the temporary roadway. One hundred and twenty-nine thousand five hundred feet B. M. of timber were used in this work and 4,200 lineal feet of piles were driven.

An extra voucher for $2,610.10 was rendered on the 16th of the month to Lydon & Drews Co. for material and labor for the building of a coffer dam around the center pier of the Adams Street Bridge and strengthening the dock piles at Jackson Street.

The tug "Blackball No. 2," which was sunk in December and abandoned by its owners, was removed by Lydon & Drews Co. and a voucher for $400.00 for said work was issued to them on the 16th of the month.

The work of dredging the South Branch of the river was carried on during the month by Nos. 1 and 2 of the contractors' dredges and 32,700 cubic yards of material were removed between Main and Quarry Streets and 4,700 cubic yards at Canal Street. The material was mostly sludge and was dumped into Lake Michigan. Five (5) piles were also pulled and removed during the month.

Section "O."—The work of erecting the superstructure of the Southwest Boulevard Bridge was continued during that portion of the month which was favorable and is still in an incomplete state. The work of filling the approaches to this bridge was begun on the 14th of the month and continued to the 26th. McMahon & Montgomery Co. et al. are the contractors for this work and a voucher in their favor for 1,120 cu. yds. at 21c was drawn on the 23rd of the month. The work cannot be completed until after the superstructure for this bridge is finished. On the 27th of the month a voucher amounting to $191.73 was issued to John Ries for supplying 581 cubic yards of cinders and filling it into the north approach of this bridge.

On the 6th of the month a fina

voucher was drawn in favor of the Chicago Star Construction Co. for the erection of the new temporary trestle for the Chicago Junction Ry. Co. which amounted to $782.16. A voucher for $40.46 was also drawn on the 16th of the month in favor of A. T. Wilcox for repairs made in December, 1898, on the old Chicago Junction Railway Company's temporary trestle. On the completion of the new Chicago Junction Railway Co.'s temporary bridge it became necessary to shift the decks of the old trestles slightly before the new trestle could be used. This work was done by A. T. Wilcox, and a voucher for $30.81 was issued to him on this account on the 1st of February.

The several railroad companies at the Pan Handle crossing did more or less work during the month, a record of which was kept by our inspector. The following vouchers were issued on their account during January:

Chicago Terminal Transfer Railroad Company	$438.84
Illinois Central Railroad Company	18.98
Chicago Junction Railway Company	120.00

Section "*N*" — On this section the shovel and train plant worked from the 18th to the 28th of the month. The excavated material was spoiled in the Southwest Boulevard just south of the Ogden Ditch. The viaduct over the C., B. & Q. R. R. was removed between the 23rd and the 26th of the month. No voucher was issued during the month to Hayes Bros. owing to an overestimate in December.

The work of erecting the superstructure for the C., M. & N. R. R. Co.'s bridge across the Main Channel was carried on during that portion of the month which was favorable to work. A portion of the false work was removed, and on the 5th of the month a voucher for $15,000.00 on account was issued to the contractors for this part of the bridge.

The work of the substructure for the C., M. & N. R. R. Co,'s bridge across Kedzie Avenue was checked up during the month, and one current and the final estimate were vouchered during that period. The quantities vouchered for the month are as follows. Portland cement concrete, 78.81 cubic yards; masonry, 18.88 cubic yards; excavation, 909 cubic yards. The work of lowering the roadway at the site of this bridge, and of making provision for the drainage of same, was completed during the month, and a voucher to Hayes Bros., et al., for $1,141.91 was issued on this account on January 23d. On the same date a voucher for $302.94 was issued to the Chicago Crushed Stone Company for supplying and spreading 201.96 cubic yards of crushed stone and screenings on the said roadway.

The work of erecting the superstructure for the Kedzie Avenue Bridge across the Main Channel was continued throughout the month.

Work on the superstructure of the A., T. & S. F. Ry. Co.'s Bridge was continued during the month. On the 1st of February a voucher was issued to the A., T. & S. F. Ry. Co., amounting to $10,285.91, for raising the tracks of its Twenty-sixth Street line. This work was done in the months of October and November, 1898.

Section "*K*"—The old timber for the C. T. R. R. temporary bridge on Section "E" was transferred to this section on the 29th of the month, to be used in the construction of the C. & W. I. Belt Ry. Co.'s temporary bridge. A voucher to Geo. M. Huss, amounting to $117.00, was issued during the month on this account.

Section "*H*"—The construction of a dam at Station 348, the object of which is to protect the unfinished portion of this section, was completed on the 7th of the month, and a voucher for this work to Gahan & Byrne, amounting to $568.40, was drawn on the 16th.

Section "*G*"—A final voucher was issued during the month for $117.04, in favor of Gahan & Byrne, for cutting down the embankment on the Santa Fe deviation. The A., T. & S. F. Ry. Co. had a large force at work during the greater part of the month laying steel, ballasting the track and leveling off the roadbed preparatory to throwing the traffic onto the new bridge and deviation. This work is being done on force account and crushed stone and slag are being used for ballast.

Section "*F*"—This section was entirely completed at 4 P. M. on January 6th. A small force of men was kept on the section up to the 21st removing and storing the contractor's plant. A portion of this plant was shipped to Joliet. Work on the final estimate was continued during the entire month and almost completed.

The work of cleaning up the foundation and laying concrete for the center pier of the Summit-Lyons road bridge over the Main Channel was finished on the 21st of the month. The

work was very much retarded by the flowing in of water. The pumping plant of this Section was thrown out of service, which allowed the water to flow into the center pier pit and made it necessary for the contractor to build a levee around same. The quantities vouchered on this account are as follows: Portland cement concrete, 130 cubic yards; masonry, 140 cubic yards.

Section "E"—The traveling derrick and Peteler car plants continued work during that portion of the month that was favorable to work and excavated a total of 12,980 cubic yards of solid rock, all of which was placed in revetment wall. No estimate was given on revetment wall quantities, as very little facing up was done. Five thousand cubic yards were excavated by steam shovel from the hard stratum referred to in the November report. Forty per cent. or 2,000 cubic yards of this amount were classified as rock which, added to the 12,980 cubic yards mentioned above, makes 14,980 cubic yards of rock vouchered for the month. The merry-go-round plant continued work all the month, removing from the Main Channel 5,907 cubic yards and 7,744 cubic yards from revetment excavation. Of these two amounts 11,651 cubic yards were vouchered for the month as glacial drift and the remaining 2,000 cubic yards were vouchered as rock, as indicated above.

It is proper to explain here that in making up the voucher for the last half of January (Voucher No. 89) an item of 8,942 cu. yds. of glacial drift was added to said voucher for work done by Angus & Gindele under their contract on this section. The final notes of the work of these contractors gives this increase and since the Halvorson, Richards & Co. contract is but a continuation of the former ones on this section the said increase is shown on the last voucher issued for this work.

From the 26th to the end of the month the work of laying slope wall in front of the abutments of the C., T. T. R. R. Co.'s permanent bridge over the Main Channel was carried on. On the 1st of February a voucher was issued in favor of the C., T. T. R. R. Co., amounting to $1,850.31, for furnishing and handling sand, etc., for the approaches to this bridge. On the same date a voucher was issued to this same company amounting to $219.74 for wages for switchmen and supplies on account of its temporary bridge over the Main Channel. From the 23rd to the 26th of the month the old lumber from this temporary bridge was sorted overloaded on cars and shipped to the C. & W. I. Belt Ry. crossing. A voucher for $117.00 covering the cost of this work was issued, as noted under Section "K."

On the 23rd of the month work was resumed on the C., T. T. R. R. permanent bridge over the Desplaines River. The pit for the south abutment was pumped out and excavation proceeded with.

From the 8th to the 13th of the month the work of removing the old piers from the bed of the Desplaines River at the Lyons-Summit road was undertaken. The work was not entirely completed and no voucher was issued during the month.

Section 1. Lumber and iron for the superstructure of the Willow Springs Road Bridge were unloaded at the site of the work and the erection of the same began on the 3rd and continued throughout the month. Two hand derricks and one hand traveler were used in placing iron and an average of 11 bridge men employed. On the 27th of the month a voucher was issued to C. L. Strobel for $8,994.00, this being 60 per cent. of the contract price for the superstructure.

Section 7—On the 12th of the month a voucher was issued to Sackley & Peterson for $300.00 for work done pumping out the quarry on this section in order to obtain the saved dimension stone to be used in sundry bridge substructure work.

Section 8—No work was done on the Santa Fe Railway embankment after the 31st of December with the exception of a force of 12 laborers, team and dump cars working from the 9th to the 20th of the month, a total of 10½ days taking excess embankment down to grade. An average of 21 laborers and 3 teams in conjunction with the steam shovel and cable incline hoist worked up to and including December 31st, 1898. Three thousand six hundred cubic yards were vouchered for the month on this account. A large traveler, in addition to the two derricks reported last month, was erected and operated throughout the month on account of the superstructure for the A. T. & S. F. Ry. Co.'s bridge across the Main Channel. A force of 11 bridge men and 8 laborers was employed. The four panel posts on the north side were erected and the circle in the center pier completed and a portion of the bridge floor put down on the 27th of the month. A voucher was issued to the Carnegie Steel Co. Ltd. for $45,711.00, this being 60 per

cent of the contract price for the superstructure.

The unloading of iron and lumber for the superstructure of the Lemont Road permanent bridge over the Main Channel was begun about the 1st of the month and the work of construction began on the 3d. A part of the false work and the iron work and rollers for the circle in the center pier were placed in position. Only about 5 days were spent in construction, the balance of the time being devoted to unloading iron and lumber. The work on the substructure for this bridge was completed during the month and a final for same amounting to $1,171.44 was rendered on the 1st of February.

Bear Trap Dam—The contractors for the foundations, etc., for this work have been busy with a small force painting the iron work and placing the large oak gates. The contractors for the superstructure began work on December 27th with a small force cleaning the iron by force account. The erection of iron work for the dam was begun on the 19th and continued throughout the month. Good progress had been made and three-fourths of the dam has been assembled and field riveting started.

Section 16—The work of excavating for foundations for the Wire Mills Road bridge was begun on December 28th with a force of nine laborers. The east abutment and pier were ready for concrete on the 31st of December. Concrete work was begun on the 3rd of the month and the east abutment and pier were finished on the 17th. The balance of the month was spent in raising the west bridge, and was done under separate contract. The work of excavating for foundations for the west pier and abutment of this bridge was continued. The quantities vouchered for the month on account of this bridge were as follows: Excavation 470 cubic yards, Portland cement concrete 350 cubic yards. On the 10th of the month a voucher for $1,500.00 was issued to Hayes Bros. for building a temporary trestle at the Wire Mills Road crossing of the channel.

The work of excavating for foundations for the Lockport Road bridge was begun on the 12th of the month with an average force of nine laborers. Two steam drills were used. At the end of the month excavation for foundations had been done on both piers and on the east and west abutments, but all were incomplete. Three teams were used in hauling cement and broken stone preparatory to concrete work.

Section 17—Work on this section was confined to that portion north of Robey Street and west of the upper basin and the Illinois and Michigan Canal, and continued day and night throughout the greater portion of the month. The plant in operation consisted of one steam shovel, two locomotives, one steam derrick, 2 cable incline hoists, twelve steam drills and one-yard and five-yard dump cars. Three pumps were in operation throughout the month, running most of the time in double shifts; 10,700 cubic yards of glacial drift were excavated as follows: 3,600 cubic yards by wagon forces; 3,900 cubic yards by wheeled scrapers, and 3,200 cubic yards by wheelbarrow gangs; 32,600 cubic yards of solid rock were removed by the following methods: 10,800 cubic yards by steam shovel, working 45 shifts, averaging 240 cubic yards per shift, taken to the spoil bank by locomotives and five-yard cars; 8,200 cubic yards by steam derrick, loaded into five-yard cars and handled by locomotives; 11,000 cubic yards by gangs of rockmen, loaded into one-yard cars, and removed to spoil bank by incline hoists and horses; 1,900 cubic yards by wagons; 700 cubic yards by wheelbarrows. On the 25th of the month a voucher for $10,000.00 was issued to Heldmaier & Neu as a part payment for claims allowed in consequence of the injunction issued by Judge Hilcher on August 17th, 1898.

Section 18—On this section 6,900 cubic yards of material were excavated by gangs of rockmen, and the material was removed to the levee by means of one-yard cars operated by horses, in 20½ shifts, averaging 337 cubic yards per shift.

Pumping Plant—The work of repairing boilers was begun on the 2d and was completed on the 11th of the month. Pumping continued throughout the month, and on the 31st the water was at grade.

DIVISION OF DRAFTING AND DESIGNING.

The regular platting was continued on the contour maps between Lockport and Lemont, on the 50 foot scale maps of the North Branch of the Chicago River and on the atlas of the right of way.

The following drawings, etc., were made: Plan attached to contract with the Economy Light and Power Company, was copied in the record book of Joliet; plan and cross-sections for the temporary trestle work of the C. & W. I. Belt R. R. Co.; plan of Ray lands in Sections 25, and 24, 37, 10, showing con

tours and high water marks; colored index map for the Commissioner of Public Works of St. Louis; 200-foot scale map of Joliet, showing Channel, etc., through Joliet; tracings of right of way plats from Summit to County line, for the Law Department; a map showing the location of the Romeo Road Bridge across the Main Channel and a copy of a plat of Manchester, showing the McGuirl lots, etc., for the Law Department.

Work was continued on theplans for the Jefferson Street, the Cass Street and the C., R. I. & P. R. R. Co.'s Bridges at Joliet; some work was done on the plans for the C., R. I. & P. R. R. Co.'s temporary bridge at Joliet, but was afterward abandoned, as the railroad people requested a change in span in preference to the one originally agreed upon. Some time was devoted to making arrangements with the Joliet officials for the carrying of street cars and traffic over the temporary roadway from Jefferson Street to Exchange Street. Some routine work was done during the month checking up bridge substructure quantities and figuring the details for current work.

Detail work on plans for the Bear Trap Dam was continued during the month, as was also work on plans for the By-pass along the Chicago River. Borings were made at the site of the contemplated bridges of the C., T. T. R. R. Co. and Taylor Street, crossing the Chicago River. Some time was devoted to the work through Joliet.

The testing of sand and cement for use in the work of construction was continued, as was also the work of preparing record photographs and the maintenance of water gauges. Some time was given to hydraulic data pertaining to the Chicago and Desplaines Rivers and to Lake Michigan. Inspection of all work of construction was carried on during the entire month.

DIVISION OF RECORDS.

The work of checking the construction detail sheets was carried on as usual. The tabulated statements showing the values and quantities of work done for the month of December, 1898, together with the financial statement for the same period, were completed. The various tables which are to accompany the annual report of this department were worked out. The books of the Engineering Department have been kept, all correspondence has been carried on, pay rolls have been issued, letters and documents have been filed and all other clerical work has been carried on.

I estimate the expenses of the department for the month of February will be $175.000.00.

Respectively submitted,

(Signed.) ISHAM RANDOLPH,

Chief Engineer."

SANITARY DISTRICT OF CHICAGO—ENGINEERING DEPARTMENT.

CLASSIFIED STATEMENT OF EXPENDITURES DURING THE MONTH OF JANUARY, 1899.

Classification.	Engineering Expenses.			Construction.	Total to Date.	
	Salaries.	Supplies, Etc.	Total.		Eng. Expenses.	Construction
Preliminary Sundries	.....	.....	.....	.....	$120,633 75	.....
Locating Route Main Channel	.....	.....	.....	.....	32,222 94	.....
Borings and Test Pits	$ 62 50	.....	$ 62 50	.....	18,194 94	.....
Maps and Plans for General Use of Sanitary District	112 75	.....	112 75	.....	52,943 05	.....
Chicago River Survey	.....	.....	.....	.....	63,516 50	.....
Chicago River Improvement	1,199 59	$ 62 35	1,261 94	$ 14,424 91	20,965 43	$ 141,075 10
Right of Way	467 90	1 80	469 70	.....	36,779 76	.....
Flood Measurements	52 43	1 00	53 43	.....	26,526 51	.....
Disposal Works and Joliet Project	2,029 66	54 30	2,083 96	33,414 82	83,181 10	410,992 70
Regular Construction—Main Channel and River Diversion	1,462 89	65 99	1,528 88	14,608 74	560,471 27	18,285,803 62
Extra Work—Main Channel	.....	.....	.....	.....	31 33	68,618 63
Extra Work—River Diversion	.....	.....	.....	.....	9,723 42	334,304 74
Levees, Embankments, etc.	.....	.....	.....	.....	1,022 49	193,177 19
Spillway	.....	.....	.....	.....	1,754 91	20,518 41
Wire Mills Road Temporary Bridge over Main Channel, Sec. 16	.....	.....	.....	1,500 00	.....	1,500 00
Wire Mills Road Permanent Bridge over Main Channel, Sec. 16	317 50	.....	317 50	2,514 75	713 04	2,514 75
Lockport Temporary Roadway Bridge over Main Channel, Sec. 16	.....	.....	.....	.....	.....	1,191 23
Lockport Road Permanent Bridge over Main Channel, Sec. 16	36 67	.....	36 67	.....	374 37	.....
Romeo Road Permanent Bridge over Main Channel, Sec. 12	33 33	.....	33 33	60 00	728 10	60 00
Romeo Road Temporary Bridge, over Main Channel, Sec. 12	.....	.....	.....	.....	.....	1,120 78
Work Account Western Stone Company's Quarry No. 5, Sec. 10	.....	.....	.....	.....	.....	8,865 65
Western Stone Company's Permanent Bridge over Desplaines River, Sec. 10	.....	.....	.....	.....	1,157 05	15,983 63
Western Stone Company's Temp. Bridge over Main Channel, Sec. 9	.....	.....	.....	.....	.....	1,012 30

SANITARY DISTRICT OF CHICAGO—ENGINEERING DEPARTMENT—*Continued.*

CLASSIFIED STATEMENT OF EXPENDITURES DURING THE MONTH OF JANUARY, 1899.

Classification.	*Engineering Expenses.*			Construction.	*Total to Date.*	
	Salaries.	Supplies, Etc.	Total.		Eng. Expenses.	Construction
Lemont Road Permanent Bridge over Main Channel, Sec. 8	$ 121 67	.....	$ 121 67	$ 1,231 44	$ 1,003 81	$ 6,237 39
Lemont Road Temporary Bridge over Main Channel, Sec. 8	.....	.....	.....	.....	.....	1,115 09
Lemont Road Permanent Bridge over Desplaines River, Sec. 8	.....	.....	.....	.....	985 66	22,329 89
A., T. & S. Fe Ry. Co.'s Temporary Bridge over Desplaines River, Sec. 8	.....	.....	.....	.....	770 72	18,738 80
A., T. & S. Fe Ry. Co.'s Permanent Bridge over Desplaines River, Sec. 8	3 00	45 00	48 00	.....	3,222 77	26,574 06
A., T. & S. Fe Ry. Co.'s Permanent Bridge over Main Channel and track deviation, Sec. 8	285 00	45 00	330 00	$ 46,278 00	4,305 68	68,295 13
Willow Springs Road Temporary Bridge over Main Channel, Sec. 1	.....	.....	.....	.....	9 00	1,987 00
Willow Springs Road Permanent Bridge over Main Channel, Sec. 1	75 00	.....	75 00	9,054 00	1,108 48	16,972 52
Mt. Forest Foot Bridge over Illinois and Michigan Canal, Sec. A	.....	.....	.....	.....	32 17	.....
C. T. T. R. R. Co.'s Temporary Bridge over Main Channel, Sec. E	80 00	.....	80 00	219 74	498 42	7,227 12
C. T. T. R. R. Co.'s Permanent Bridge over Main Channel, Sec. E	65 00	8 00	73 00	1,850 31	3,382 32	49,461 37
C. T. T. R. R. Co.'s Temporary Bridge over Desplaines River, Sec. E	40 00	.....	40 00	.....	320 00	3,353 40
C. T. T. R. R. Co.'s Permanent Bridge over Desplaines River, Sec. E	100 00	.....	100 00	60 00	768 09	60 00
Lyons-Summit Road Temporary Bridge over Main Channel, Sec. E	.....	.....	.....	.....	839 05	5,649 52
Lyons-Summit Road Permanent Bridge and roadway over Main Channel, Sec. F	100 00	8 00	108 00	2,028 75	1,750 38	13,965 94
Lyons-Summit Road Temporary Bridge over Desplaines River, Sec. E	.....	.....	.....	.....	40 00	.....
Lyons-Summit Road Permanent Bridge over Desplaines River, Sec. E	80 00	.....	80 00	.....	1,352 12	12,830 82
A., T. & S. Fe Ry. Co.'s Permanent Bridge over Desplaines River, Sec. F	.....	.....	.....	.....	891 45	.....
A., T. & S. Fe Ry. Co.'s Temporary Bridge over Main Channel, Sec. G	.....	.....	.....	.....	7 00	.....
A., T. & S. Fe Ry. Co.'s Permanent Bridge over Main Channel and track deviation, Sec. G	30 00	25 00	55 00	117 04	5,084 03	83,112 75
C. & W. I. Belt Ry's Temporary Bridge over Main Channel, Sec. K	100 00	.....	100 00	117 00	100 00	117 00
C. & W. I. Belt Ry's Permanent Bridge over Main Channel, Sec. K	.....	75 00	75 00	.....	1,315 99	.....
A., T. & S. Fe Ry. Co.'s Temporary Bridge over Main Channel, Sec. N	.....	.....	.....	.....	428 69	3,444 78

A., T. & S. Fe Ry. Co.'s Permanent Bridge over Main Channel, Sec. N.	50 00	30 80	80 80	10,285 91	4,614 78	60,312 88
Kedzie Avenue Temporary Roadway over Main Channel, Sec. N.	.....	.....	.....	.....	512 15	1,067 72
Kedzie Avenue Permanent Bridge over Main Channel, Sec. N.	40 00	111 85	151 85	.....	3,109 62	34,147 09
C., M. & N. R. R. Co.'s bridge over M. C. and Kedzie Av. viaduct, and track deviation, Sec. N.	129 00	25 00	154 00	18,237 60	6,784 35	153,368 58
Western Avenue Temporary Bridges over Main Channel, Sec. O.	.....	.....	.....	.....	1,557 97	8,659 76
Southwest Boulevard Permanent Bridge over Main Channel, Sec. O.	100 00	182 50	282 50	426 93	11,386 68	93,874 88
Pan Handle R. R. Co.'s Temporary Bridges over Main Channel, Sec. O.	150 00	.....	150 00	1,375 75	3,342 19	43,415 14
Pan Handle R. R. Co.'s Permanent Bridge over Main Channel, Sec. O.	80 00	1 49	81 49	.....	12,407 44	57,798 20
Taylor Street Permanent Bridge over Chicago River	.....	.....	.....	.....	.....	4,222 22
C. T. T. R. R. Co.'s Permanent Bridge over Chicago River	.....	.....	.....	.....	.....	8,444 45
E. J. & E. R. R. Co.'s Bridge over Main Channel, North of Joliet	.....	.....	.....	.....	1,653 94	41,984 62
Tow Path Permanent Bridge over Main Channel, Sec. 17	.....	.....	.....	.....	9 00	.....
Jefferson Street Permanent Bridge over Main Channel at Joliet	120 00	.....	120 00	.....	538 67	.....
Cass Street Permanent Bridge over Main Channel at Joliet	160 00	1 74	161 74	.....	593 21	.....
C., R. I. & P. Ry's. Permanent Bridge over Main Channel at Joliet	203 83	.....	203 83	.....	529 83	.....
Moving and Repairing Bridges	.....	.....	.....	.....	614 88	8,341 44
Building Romeo Highway, Sec. 12	.....	.....	.....	.....	106 34	1,732 72
Saving of Building Sand	.....	.....	.....	.....	.....	781 63
Mortar, Sand and Cement Tests	270 84	42 82	413 66	.....	31,939 94	.....
Saving of Dimension Stone	.....	.....	.....	.....	.....	11,233 20
Erosion Tests	.....	.....	.....	.....	1,496 75	.....
Temporary Sanitary Relief	.....	.....	.....	.....	237 60	.....
Photographs of Works	125 00	3 17	128 17	.....	9,239 88	.....
Public Reports	.....	.....	.....	.....	3,580 16	.....
Remeasurement of Main Channel	.....	.....	.....	.....	5,283 82	.....
Effect of Main Channel Water on Lake Levels	.....	.....	.....	.....	1,798 38	.....
General Account	.....	.....	.....	.....	71,947 23	.....
Totals	$8,383 56	$ 790 81	$ 9,174 37	$157,805 69	$1,232,440 60	$20,352,595 84

VALUES— STATEMENT SHOWING CONDITION

Designation.	Amount earned during Jan., 1899. Main Channel.	Bridges.	General.	Total.	Amount earned to date. Main Channel.	River Diversion.	Bridges.	General
Chicago River Imp'ment	$16,055 60			$16,055 60	$ 159,878 00			
O		$ 1,375 75		1,375 75	332,615 11		$ 61,610 05	
N					200,671 52		3,444 78	
M.					158,015 06			
L					217,287 06			
K		117 00		117 00	287,299 54		117 00	
I.					289,846 00			
H	568 40			568 40	290,099 46			
G					387,701 88			
F					336,978 72	$ 75,627 73		
E	16,046 11	219 74		16,265 85	692,719 34	29,091 91	14,988 54	$ [illegible]
D					592,039 29	2,880 54		
C.					443,342 59	40,135 18		[illegible]
B					438,986 42	59,451 34		[illegible]
A					801,584 08	115,741 73		
1.					1,210,660 37	143,908 29	1,987 00	[illegible]
2.					877,695 00	63,190 86		[illegible]
3.					840,952 93	338 42		
4.					975,248 98	83,304 43		[illegible]
5.					749,207 28	6,653 64		
6.					686,282 00	55,911 37		
7.					722,544 74	66,193 19		8,72[illegible]
8.					888,834 43	89,683 90	19,853 89	2,58[illegible]
9.					794,838 28	23,573 72	1,012 30	
10.					921,454 79	78,729 58		8,[illegible]
11.					797,717 50	43,854 42		
12.					837,660 69	21,768 52	1,120 78	
13.					819,388 19			
14					931,457 10			
15.					551,915 85	117 61		
16.		1,500 00		1,500 00	38,631 23		1,500 00	
17.	33,641 00			33,641 00	119,805 21			
18.	3,118 80			3,118 80	22,277 38			
Disposal Wks. at Lockp't					243,579 25			
Repairing I. & M. Canal.								18,0[illegible]
Van Buren St. Approach Span, Chicago River								
Taylor St. Br. over Chicago River							4,222 22	
C. T. T. R. Co.'s Br. over Chicago River							8,444 45	
S. W. Blvd. Br., over M. C., Sec. O		426 93		426 93			98,036 35	
Pan Handle Br., over M. C., Sec. O							58,345 64	
C., M. & N. R. R. Br., over M. C., Sec. N		15,000 00		15,000 00			143,729 54	
C., M. & N. R. R. Br., over Kedzie Av., Sec. N		2,718 10		2,718 10			13,046 62	
Kedzie Av. Br., over M. C., Sec. N							34,404 78	
A., T. & S. F. R. R. Br., over M. C., Sec. N		10,285 91		10,285 91			61,889 61	
A., T. & S. F. R. R. Br., over M. C., Sec. G		117 04		117 04			81,536 02	
A., T. & S. F. R. R. Br., over D. R., Sec. F								
Lyons-Summit Road Br., over D. R., Sec. E							12,978 77	
Lyons-Summit Road Br., over M. C., Sec. E		2,310 00		2,310 00			15,003 95	
C. T. T. R. R. Br., over M. C., Sec. E		1,850 31		1,850 31			49,120 12	
C. T. T. R. R. Br., over D. R., Sec. E		60 00		60 00			450 00	
Willow Spgs. Highway Br., over M. C., Sec. 1		9,054 00		9,054 00			16,972 52	
A., T. & S. F. Br., over M. C., Sec. 8		46,359 00		46,359 00			70,615 60	
A., T. & S. F. Br., over D. R., Sec. 8							26,924 06	
Lemont Highway Br., over M. C., Sec. 8		544 00		544 00			6,237 39	
Lemont Highway Br., over D. R., Sec. 8							22,329 89	
Western Stone Co.'s Br., over D. R., Sec. 10							15,983 63	

CONSTRUCTION CONTRACTS, FEBRUARY 1, 1899.

Total.	Amount Paid to Date.	REMAINING TO BE EARNED.			REMAINING TO BE PAID ON VOUCHERS.		
		Main Channel.	Bridges.	Total.	Retained Percentages.	Unpaid Vouchers.	Total.
$ 159,978 00	$ 127,050 19	$ 152,079 01	.....	$ 152,079 01	$ 18,902 90	$ 14,024 91	$ 32,927 81
394,225 16	352,045 14	48,770 14	.....	48,770 14	41,576 89	603 13	42,180 02
204,116 30	179,133 61	56,322 40	.....	56,322 40	24,982 69	.....	24,982 69
158,015 06	158,015 06	.....	.....	.....	.....	.....	.....
217,287 06	217,287 06	819 32	.....	819 32	.....	.....	.....
287,416 54	287,299 54	7,888 25	.....	7,888 25	.....	117 00	117 00
280,846 00	282,846 00	.....	.....	.....	.....	.....	.....
290,099 46	290,099 46	28,129 18	.....	28,129 18	.....	.....	.....
387,701 88	387,537 38	11,001 20	.....	11,001 20	164 50	.....	164 50
412,606 45	357,939 79	6,344 02	.....	6,344 02	46,819 91	7,846 75	54,666 66
737,009 79	628,665 20	58,192 02	.....	58,192 02	89,880 22	18,464 37	108,344 59
594,919 83	594,919 83	.....	.....	.....	.....	.....	.....
484,259 40	484,259 40	.....	.....	.....	.....	.....	.....
498,587 76	498,587 76	.....	.....	.....	.....	.....	.....
917,325 81	917,325 81	.....	.....	.....	.....	.....	.....
1,356,585 66	1,349,690 00	.....	.....	.....	6,179 83	715 83	6,895 66
940,975 86	940,975 86	.....	.....	.....	.....	.....	.....
841,291 35	841,291 35	.....	.....	.....	.....	.....	.....
1,058,638 66	1,058,638 66	.....	.....	.....	.....	.....	.....
755,860 92	755,860 92	.....	.....	.....	.....	.....	.....
742,193 37	742,193 37	.....	.....	.....	.....	.....	.....
797,495 93	797,495 93	.....	.....	.....	.....	.....	.....
1,000,952 28	1,000,637 28	9,942 66	.....	9,942 66	315 00	.....	315 00
819,424 30	819,424 30	.....	.....	.....	.....	.....	.....
1,009,136 70	1,009,136 70	.....	.....	.....	.....	.....	.....
841,571 92	841,571 92	.....	.....	.....	.....	.....	.....
860,549 99	860,549 99	.....	.....	.....	.....	.....	.....
819,388 19	819,388 19	.....	.....	.....	.....	.....	.....
931,457 10	931,457 10	.....	.....	.....	.....	.....	.....
552,033 46	552,033 46	.....	.....	.....	.....	.....	.....
40,131 23	35,451 23	26,910 00	.....	26,910 00	4,680 00	.....	4,680 00
119,805 21	85,431 46	177,876 10	.....	177,876 10	18,687 88	20,685 87	34,373 75
22,277 38	16,778 28	128,478 40	.....	128,478 40	2,770 15	2,728 95	5,499 10
243,579 25	232,190 05	8,814 00	.....	8,814 00	11,389 20	.....	11,389 20
18,052 85	18,052 85	.....	.....	.....	.....	.....	.....
.....	.....	.....	$19,495 87	19,495 87	.....	.....	.....
4,222 22	4,222 22	.....	8,444 45	8,444 45	.....	.....	.....
8,444 45	8,444 45	.....	16,888 88	16,888 88	.....	.....	.....
98,036 35	93,447 95	.....	54,902 44	54,902 44	4,161 47	426 93	4,588 40
58,345 64	58,345 64	.....	355,670 24	355,670 24	.....	.....	.....
143,729 54	141,232 05	.....	13,465 60	13,465 60	.....	2,497 49	2,497 49
13,046 62	10,525 43	.....	.....	.....	.....	2,521 19	2,521 19
34,404 78	34,053 77	.....	8,526 00	8,526 00	.....	351 01	351 01
61,889 61	51,259 57	.....	7,286 54	7,286 54	.....	10,630 04	10,630 04
81,536 02	81,418 98	.....	20,416 00	20,416 00	.....	117 04	117 04
.....	.....	.....	19,321 80	19,321 80	.....	.....	.....
12,978 77	12,830 82	.....	.....	.....	147 95	.....	147 95
15,003 95	11,937 19	.....	22,893 45	22,893 45	1,038 01	2,028 75	3,066 76
49,120 12	47,269 81	.....	.....	.....	.....	1,850 31	1,850 31
450 00	341 25	.....	14,428 65	14,428 65	48 75	60 00	108 75
16,972 52	7,918 52	.....	5,906 00	5,906 00	.....	9,054 00	9,054 00
70,615 60	22,261 26	.....	36,969 30	36,969 30	2,076 34	46,278 00	48,354 34
36,924 06	26,574 06	.....	—4,962 03	—4,962 03	350 00	.....	350 00
6,237 39	5,005 95	.....	14,881 35	14,881 35	.....	1,231 44	1,231 44
22,329 89	22,329 89	.....	.....	.....	.....	.....	.....
15,983 63	15,983 63	.....	.....	.....	.....	.....	.....

VALUES— STATEMENT SHOWING CONDITION OF

Designation.	Amount earned during Jan., 1899.				Amount earned to date.			
	Main Channel.	Bridges.	General.	Total.	Main Channel.	River Diversion.	Bridges.	General.
Romeo Highway Br. over M. C., Sec. 12	.....	60 00	.....	60 00	.....	.....	60 00	.....
Lockport Highway Br. over M. C., Sec. 16	.....	.....	.....	.....	.....	.....	.....	.....
Wire Mills Rd. Br., over M. C., Sec. 16	.....	2,874 00	.....	2,874 00	.....	.....	2,874 00	.....
E., J. & E. R. R. Co.'s Br., N. of Joliet	.....	.....	.....	.....	.....	.....	$ 41,984 62	.....
Crib work at Joliet	.....	.....	.....	.....	.....	.....	.....	$32,140 [illegible]
Totals	$69,429 91	$94,871 78	.....	164,301 69	$ 18,659,315 27	$1,000,156 38	$890,774 12	$71,881 [illegible]

CONSTRUCTION CONTRACTS. FEBRUARY 1, 1899—*Continued*.

Total.	Amount Paid to Date.	REMAINING TO BE EARNED.			REMAINING TO BE PAID ON VOUCHERS.		
		Main Channel.	Bridges.	Total.	Retained Percentages.	Unpaid Vouchers.	Total.
60 00	.....	.....	24,649 75	24,649 75	.....	$ 60 00	$ 60 00
.....	.....	.....	14,477 00	14,477 00	.....	.....	.....
2,874 00	1,312 50	.....	11,887 30	11,887 30	$ 359 25	1,202 25	1,561 50
41,984 62	41,984 62	.....	.....	.....	.....	.....	.....
32,140 89	32,140 89	.....	.....	.....	.....	.....	.....
$20,622,126 78	$20,209,100 58	$721,566 65	$665,548 59	$1,387,115 24	$269,530 94	$143,495 26	$413,026 20

QUANTITIES— STATEMENT SHOWING CONDITION OF CON

DESIGNATION.	AMOUNT DONE DURING JANUARY, 1899. Main Channel. Glacial Drift. Cu. Yds	Solid Rock. Cu. Yds	Piles Lineal Feet.	Masonry and Conc'r't. Cu. Yds.	TOTAL DONE TO Main Channel. Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds.	Retaining Wall. Cu. Yds.
Chicago River Improvement	40,850		4,200		627,600		
O					1,589,356		
N					870,429		
M					728,180		
L					1,102,980		
K					1,149,031		
I					1,159,384		
H					997,014		
G					1,356,614		
F					1,084,363	36,762	
E	20,593	14,980			1,893,861	172,175	
D					1,934,890	87,030	
C					1,881,545		
B					1,570,036	15,586	
A					2,560,648	13,312	
1					1,282,267	554,326	68,256
2					724,905	483,750	38,506
3					425,705	760,778	14,039
4					1,096,746	262,428	68.169
5					952,526	378,609	56,059.1
6					683,248	549,355	30,361.7
7					181,721	890,939	6,179.9
8					50,170	1,145,252.1	2,874.9
9					76,692	1,003,769	
10					31,743	1,141,890	
11					44,021	989,711	
12					44,030	998,709	9,286.94
13					33,810	1,033,665	10,828
14					380,165	1,022,796	23,567.8
15					85,324	647,039	44,811.2
16						96,000	
17	10,700	32,600			82,200	127,000	
18	6,900				71,100		
Disposal Works at Lockport						8,538	
Van Buren St. App. Span, Chicago R.							
S. W. Blvd. Bridge over M. C., Sec. O.	1,120				9,873.5		
Panhandle Bridge over M. C., Sec. O.							
C., M. & N. R. R Co.'s Bridge over Main Channel, Sec. N					17,849		
C., M. & N. R. R. Co.'s Bridge over Kedzie Avenue, Sec. N	1,869			92.69	2,869		
Kedzie Avenue Bridge over Main Channel, Sec. N					7,101		
A., T. & S. F. R. R. Co.'s Bridge over Main Channel, Sec. N					7,445		
A., T. & S. F. R. R. Co.'s Bridge over Main Channel, Sec. G					85,253		
Lyons-Summit Road Bridge over Desplaines River, Sec. E					5,557		
Lyons-Summit Road Bridge over Main Channel, Sec. E				270	2,266		
C., T. T. R. R. Co.'s Bridge over Main Channel, Sec. E					4,748.1		
C., T. T. R.R. Co.'s Br. over Desplaines River, Sec. E					600		
Willow Springs Highway Bridge over Main Channel, Sec. 1					2,084		
A., T. & S. F. R. R. Co.'s Bridge over Main Channel, Sec. 8	3,600				92,015	1,020	
Lemont Highway Bridge over Main Channel, Sec. 8		202		33.36	2,006	202	
Romeo Highway Bridge over Main Channel, Sec. 12							
Lockport Highway Bridge over Main Channel, Sec. 16							
Wire Mills Road Bridge over Main Channel, Sec. 16		505		350		505	
E., J.& E. R.R.Co.'s Bridge, N. of Joliet							
Totals	85,632	48,287	4,200	746.05	26,941,970.6	12,421,146.1	372,[illegible]19.54

* Retaining Wall.

STRUCTION CONTRACTS FEBRUARY 1, 1899.

DATE.				ESTIMATED REMAINING TO BE DONE.				PERCENTAGE COMPLETED.				
River Diversion.				*Main Channel.*								
Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds.	Piles. Lineal Feet	Masonry and Concr't Cu. Yds.	Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds	Piles. Lin. Ft. & R. W.	Mas'y & Concr't Cu. Yds	Main Channel Excava'n	River Divers'n. Exc.	Ret. Wall	Masonry and Concr't	Piles.
.....	.....	35.500	.....	30.250	.....	.....	7,329	95.40	.....	....	00	100
.....	.....	.....	.....	233.679	.....	.....	.....	87.18	.....	....	.....	.....
.....	.....	.....	.....	244,880	.....	.....	.....	77.80	.....	....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	....	.....	.....
.....	.....	.....	.....	4,159	.....	.....	.....	99.62	.....	....	.....	.....
.....	.....	.....	.....	31,558	.....	.....	.....	97.38	.....	....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	....	.....	.....
.....	.....	.....	.....	96,997	.....	.....	.....	91.22	.....	....	.....	.....
.....	.....	.....	.....	39,290	.....	.....	.....	97.18	.....	....	.....	.....
179.447	.....	.....	.....	5,372	4,238	.....	.....	95.90	100	....	.....	.....
95,718	.....	.....	.....	25,173	27,825	.....	.....	97.50	100	....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	....	.....	.....
170,788	.....	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
212,486	.....	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
359,353	.....	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
174,655	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
119,234	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	100	.....	.....
196,803	17,857	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
12,256	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
118,647	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
97,917	43.102	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
57,902	99.399	.....	.....	.....	15,782	.....	.....	98.70	100	100	.....	.....
40,763	16.873	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
30,313	58.276	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
12,699	15,677	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
11,739	7,475	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	100	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	100	.....	.....
619	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
.....	.....	.....	.....	.....	69,000	.....	.....	58.18	.....	....	.....	.....
.....	.....	.....	.....	205.270	201,560	.....	.....	33.96	.....	....	.....	.....
.....	.....	.....	.....	169,585	.....	*6,300	800	29.55	.....	00	00	.....
.....	.....	.....	11,387.8	.....	1,567	.....	.....	100	.....	....	100	.....
.....	.....	.....	.....	2,800	.....	.....	784	00	.....	....	00	.....
.....	.....	10,813	4,421.94	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	.....	.....	23,000	.....	29,600	14.260	00	.....	....	00	00
.....	.....	5,948	4.236.77	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	.....	595.69	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	.....	2,886.84	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	4,544	2,489.36	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	5,748	2,929.03	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	.....	793.3	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	1,501	795	104	.....	2,499	1,189	95.61	.....	....	40.07	37.53
.....	.....	1,163.5	2,162.79	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	.....	.....	372	.....	1,000	652	61.73	.....	....	00	00
.....	.....	400	598.6	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	.....	817.07	36,085	.....	.....	.....	71.49	.....	....	100	.....
.....	.....	.....	433.36	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	.....	.....	.....	153	.....	1,082	00	.....	....	00	.....
.....	.....	.....	.....	.....	326	.....	460	00	.....	....	00	.....
.....	.....	.....	350	.....	.....	.....	115	100	.....	....	73.65	.....
.....	.....	.....	1,041.84	.....	.....	.....	.....	.....	.....	....	100	.....
1,891.3	258,659	65,620.5	35,939.39	1,148,519	320,451	33,099	26,771	96.40	100	98.34	57.31	66.47

MONTHLY REPORT FROM TREASURY DEPARTMENT.

The Clerk presented a report from the Treasury Department for the month of February, 1899, which was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT:

Receipts.

Balance on hand at date of last report		$ 29,427 39
From Collector South Town, Sanitary District Tax Account	$ 10,000 00	
From Collector West Town, Sanitary District Tax Account	20,000 00	
From J. F. Haas, Clerk, General Account	245 84	
From J. F. Haas, Clerk, Account Tax Lexy 1898 Account	804 28	
From Chicago National Bank Interest Account	12 38	
Total cash received for month		$ 31,062 50
		$ 60,489 89

Disbursements.

Clerical Department	$ 45 93	
Engineering Department	397 17	
Law Department	143 20	
General Account	182 75	
Police Department	52 69	
Maintenance Account	71 77	
Tax Warrants paid, Levy 1897	1,354 42	
Interest paid on Tax Warrants	41 10	
Total cash disbursed		$ 2,289 03
Balance this date, in banks as per schedule endorsed hereon		58,200 86
		$ 60,489 89

Schedule.

Chicago National Bank	$ 32,262 08
National Bank of Illinois	25,938 78
Total	$ 58,200 86

CHICAGO, March 6, 1899.

(Signed) F. M. BLOUNT, *Treasurer.*
By S. P. BLOUNT, *Asst. Treasurer.*

ANNUAL REPORT FROM LAW DEPARTMENT FOR 1898.

The Clerk presented a report from the Law Department for the year ending Dec. 31, 1898, which by unanimous consent was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, March 8, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—In compliance with the rules of the Board of Trustees I herewith respectfully submit the Annual Report of the Law Department for the year 1898.

In presenting this report to your Honorable Body it is proper for me to state that, while personally my connection with the Department has been of very recent date, that is, since December 1, 1898, I have given the proceedings of this Department for the past year very careful consideration prior to that time, and from such consideration of the records it is apparent that the affairs of the District under the supervision of this Department have been ably and conscientiously managed.

The proceedings of the year were conducted under the supervision of my predecessor, the late Mr. Frederick W. C. Hayes I can speak of his work only by the results accomplished, and in doing so I desire to state officially for the records of this Department that all obligations which devolved upon him as Attorney for the District were in every respect ably and fully performed.

On first assuming charge of the Depart-

ment I endeavored to become acquainted with the qualifications of the various employes and their fitness for the positions assigned to them, and also the conditions and system of the work pertaining to this Department. I found the Department well organized upon the basis of sound business principles, such as one would expect to find in a large business conducted by private individuals, the employees having the interests of the District at heart, and each competent to discharge the duties required of him.

I cannot in a report of this character comment on or criticise any of the cases tried or decided during the past year, even were it advisable, nor the effect of the various decisions upon the policy of the District, owing to the fact that I have not personal knowledge of the situation prior to December last; therefore, this report is more in the nature of a synopsis of what has been accomplished and a retrospect of the past rather than recommendations for the future. I cannot refrain, however, from congratulating your Honorable Body and the people of the Sanitary District on the settlement of the differences between the Illinois and Michigan Canal Commissioners and the Board of Trustees. While the main points of the controversy as first inaugurated were not accomplished, the result of the new agreement, which ended in the decree of December 14, assures to the people of the District that the Main Channel can be completed during the year 1899, and thereby accomplishing one of the greatest tasks known to modern engineering.

A glance at the tabulated statement herewith submitted will show that the year just closed has been fruitful in other events to the District. Over a mile of frontage along the Illinois and Michigan Canal and Desplaines River through Joliet has been acquired, either by condemnation or by direct purchase, and, considering all the facts and circumstances attending the efforts of the District in this regard, the amount of money expended for this purpose was reasonable, and no less amount could have accomplished the same results. I also beg leave to submit that the opposition to the Sanitary District by the people of the Illinois Valley has been fully pacified, and the apprehensions of the citizens of St. Louis of the danger to them from the operation of the Main Channel has disappeared through the efforts of a committee of their own citizens, who visited your Honorable Board, and thereby obtained full and complete information respecting the Sanitary District, which, prior to that time, they did not have.

Now that the right of way for the District has been almost completely obtained it is pertinent that a concise statement of the labor involved in this behalf and the cost thereof should be embodied in this report.

Since the organization of this Department, over thirty-five miles of right of way have been condemned or purchased, of a width ranging from eight hundred feet to over three-quarters of a mile, and averaging one-half a mile in width through the entire length of the channel. The amount of money expended for land acquired from organization of the District to December 31, 1898, is $3,156,903.12. This amount includes taxes, examination of abstract, rents of by-passes, opinions regarding title, and everything pertaining to the acquisition of the right of way, except court costs and charges for legal services where special counsel were employed by the authority of your Honorable Body. The cost of administration during the same period was $381,651.68. Of this amount over $50,000.00 was expended for opinions of title and preliminary costs on the first condemnation suit filed under the ordinance locating the right of way, passed August 5, 1891, and which was afterwards repealed, viz.: June 18, 1892. This condemnation suit was dismissed June 20, 1892; hence all the right of way of the District was obtained since June 20, 1892, a period covering six and one-half years. Deducting the sum of $50,000.00 expended prior to June 20, 1892, makes the cost of acquiring the right of way, including salaries, court costs, witness fees, stationery, furniture and every other item that enters into the cost of organizing and managing the Department, $351,651.68, or not quite 10 per cent. of the cost of the right of way.

In Cook County one hundred and twenty-three agreements for deeds were entered into, involving one hundred and eighty-six parcels of land, ranging in area from 13-100 of an acre to over 300 acres in extent. This includes five tracts purchased along Chicago River. Thirty-three condemnation suits have been prosecuted, involving fifty-six tracts, including four tracts on Chicago River.

In Will County fifty-four different condemnation suits were tried, the number of tracts involved numbering one hundred and forty-

three. One hundred and sixty-nine tracts were purchased and agreements and deeds executed for the same. This includes the Joliet right of way, but not the agreements entered into with the Canal Commissioners and the various railroad companies. Eighteen tracts were acquired in DuPage County by condemnation, three cases being required to settle the same, one being a retrial, viz.: the Moll case, which was retried on a change of venue, after reversal in the Supreme Court, in Will County. Fourteen tracts were acquired by purchase in DuPage County. The condemnation suits were mainly entered under one general head and afterward divided by the parties in interest, thus complicating the work of the Department. There are still two condemnation suits to be tried, both commenced in Will County since the beginning of the year.

In Cook County the District owns nearly four thousand acres, besides one hundred and ten lots in the City of Chicago, and one lot in Lemont. In Du Page County the District acquired over five hundred acres. In Will County the District is the owner of over twenty-four hundred acres, and one hundred and sixty-nine lots in the City of Joliet, besides one hundred and eighty-five lots in Lockport. The District also acquired over fifty-two thousand square feet of land abutting on the Chicago River, and about ten acres along the Illinois and Michigan Canal, acquired by agreement with the Canal Commissioners. This practically sums up the right of way work since organization, but does not include the various damage and minor cases to which the District was a party during that period, and which number over one hundred. The following is the work accomplished during the past year:

CONTRACTS AND BONDS.

The contracts, bonds and agreements executed during the year, in the preparation and examination of which the Department has participated, are as follows:

For removal of dams and other alterations necessary for the construction of the Channel through Joliet, with the Canal Commissioners of the Illinois and Michigan Canal.

Bond of the Treasurer, Fred M. Blount.

For superstructure of By-pass along the Chicago River, with Griffiths & McDermott Construction Company.

For substructure of Lockport Highway Bridge, with Griffiths & McDermott Construction Company.

For superstructure of Lockport Highway Bridge, with Wisconsin Bridge and Iron Company.

For railroad embankment, with Mason, Hoge, King & Company on Contract Section 8.

For Section 18, with Gahan & Byrne.

For Section 16, with Hayes Brothers.

For By-pass along the Chicago River, with Pennsylvania Company.

For option on certain bridge designs, with Scherzer Rolling Lift Bridge Company and C. L. Strobel.

For Section 17, with Heldmaier & Neu.

For substructure Wire Mills Road Bridge, with Hayes Brothers.

For superstructure Pan Handle Railroad Bridge, with King Bridge Company. This contract was subsequently cancelled and new contract entered into with Scherzer Rolling Lift Bridge Company.

For substructure of Pittsburgh, Cincinnati, Chicago and St. Louis Railway Company, Chicago and Northern Pacific Railroad Company and Union Stock Yard and Transit Company's Bridge, with Lydon & Drews Company. This contract was subsequently cancelled and new contract entered into with Scherzer Rolling Lift Bridge Company.

For superstructure of Pittsburgh, Cincinnati, Chicago and St. Louis Railway Company, Chicago and Northern Pacific Railroad and Union Stock Yards and Transit Company's Bridge, with the King Bridge Company. This contract was subsequently concelled and new contract entered into with Scherzer Rolling Lift Bridge Company.

For substructure of the Atchison, Topeka and Santa Fe Railway Company's Bridge on Section 8 of the Main Channel, with Mc Arthur Brothers and Winston & Co.

For superstructure of the Atchison, Topek and Santa Fe Railway Company's Bridge o Section 8, across the Desplaines River, wit the Penn Bridge Company.

For superstructure of the Atchison, Topek and Santa Fe Railway Company's Bridge across the Main Channel at Section 8, wi the Carnegie Steel Company.

For By-pass along the Chicago River, with Chicago and Alton Railroad Company.

For exchange of certain lands, with the Chicago, Santa Fe and California Railway Company.

For the substructure of the By-pass along the Chicago River, with Lydon Drews Company.

For the superstructure of the Lockport Highway Bridge and the Wire Mills Road Bridge, with the Wisconsin Bridge Company.

For the right of excavating Lockport and Wire Mills Highway, with Commissioners of Highways, Township of Lockport.

For substructure, superstructure and auxiliary work for change of the Van Buren Street approach span across the By-pass along the Chicago River, with the Chicago Bridge and Iron Company.

For purchase of designs for railroad and city bridges, with Scherzer Rolling Lift Bridge Company.

For the removal of Dam No. 1 and power plant, etc., at Joliet, with the Economy Light and Power Company.

For bridge near Taylor street, with Chicago Terminal Transfer Railroad Company.

For superstructure of Atchison, Topeka & Santa Fe Railway Company's bridge over Main Channel at Section G, with Carnegie Steel Company.

For superstructure Atchison, Topeka and Santa Fe Railroad Bridge over Main Channel at Section F, with Carnegie Steel Company.

For superstructure of Lyons and Summit Highway Bridge over Desplaines River at Section E, with C. L. Strobel.

For superstructure of bridge across Main Channel at Kedzie avenue, with King Bridge Company.

For superstructure for the Chicago Terminal Transfer Company's Bridge across the Desplaines River, with Wisconsin Bridge and Company.

r superstructure for Lemont Highway 'ge, with C. L. Strobel.

r superstructure for Romeo Highway ge, with C. L. Strobel.

r superstructure for Willow Springs way Bridge, with C. L. Strobel.

r substructure for Romeo Highway ge, with Heldmaier & Neu.

r substructure for Chicago, Madison and Northern Railroad Bridge at Kedzie Avenue, with McArthur Bros. Company and Winston & Co.

For substructure for Summit and Lyons Highway Bridge, with McArthur Bros. Company and Winston & Co.

For substructure for Lemont Highway Bridge, with Sackley & Peterson.

For substructure for Willow Springs Highway Bridge, with Sackley & Peterson.

For substructure for Chicago Terminal Transfer Railroad Company's Bridge, with Heldmaier & Neu.

Bond of Attorney, Chas. C. Gilbert.

FINAL SETTLEMENTS.

The several rights and liabilities of the District in making final settlements have been considered in connection with the following contracts:

For substructure of Atchison, Topeka and Santa Fe Railroad bridge on Section G, with McArthur Brothers and Winston & Co.

For substructure Chicago and Calumet Terminal Railroad Bridge on Section E, with McArthur Brothers and Winston & Co.

For Section A, with Heldmaier & Neu.

For Section C, with the Western Dredging and Improvement Company.

For superstructure of the Chicago Terminal Transfer Railroad Bridge near the west end of Section E.

For substructure of the Atchison, Topeka and Santa Fe Railroad Bridge across the Main Channel on Section S.

For substructure of Chicago, Madison and Northern Railroad Bridge near east end of Section N.

For substructure of Kedzie Avenue Bridge and superstructure of Summit and Lyons Highway Bridge across the Desplaines River.

LABOR AND OTHER CLAIMS.

The following claims have been filed and have at sundry times been considered by this department.

The Belt Railway Company, for lien against Angus & Gindele.

Western Stone Company, for damages for blowing up bridge.

John E. Burke, for services rendered Heldmaier & Neu on Sections A and B.

ORDINANCES.

Ordinances have been prepared from time

to time during the year providing for the tax levy of 1898, for the seventh issue of bonds, for bridges in the City of Joliet and for the issue of tax levy warrants for the year 1898. Also granting permission to the City of Chicago to construct a tunnel across the right of way and under the main channel of the Sanisary District. Also in reference to the intercepting sewers of Chicago.

OPINIONS.

The Attorney and General Counsel have rendered opinions upon legal questions which have arisen at various times during the past year and which the Board or its committees have had referred to them.

The subjects considered were as follows:

On the decree entered by consent of both parties in the case of the Canal Commissioners versus the Sanitary District.

On the release of the judgment obtained by the District against Francis Livingston as to certain real property.

On the right of the District to demand the release in full upon final payment to the contractors.

On the power of the Sanitary District to award Messrs. Haley & O'Donnell a salary in excess of $5,000 per annum.

On the obligation of the Sanitary District to divert the water from Section 10 to the Illinois and Michigan Canal.

On the clause in the contract with Heldmaier & Neu providing for night work.

PENDING SUITS.

The number of cases pending and begun during the year just closed, in which the Sanitary District is a party, is eighty-eight. Of these twenty-six were begun during the year, including six condemnation suits in Cook County and three in Will County. Below will be found a full synopsis of all the suits in which the District is interested:

Payette versus the Sanitary District of Chicago, in the Superior Court of Cook County, No. 143,959.

Cahill versus Gilford, Sanitarv District of Chicago, in the Circuit Court of Cook County, Chancery, No. 159,798.

Harlev versus Sanitary District of Chicago, in Superior Court of Cook County, Law, No. 159,797.

Sanitary District of Chicago versus Silverman et al., in the Superior Court of Cook County, Chancery, No. 164,039.

Ricker, Lee & Company versus Sanitary District of Chicago, in the Circuit Court of United States, Northern District of Illinois, No. 23,709.

Ricker, Lee & Company versus Sanitary District of Chicago, in the United States Circuit Court of Appeals, No. 511.

Western Wheeled Scraper Company versus Sanitary District of Chicago et al., in the Circuit Court of Cook of County, Chancery, No. 156,517.

McCullough versus Sanitary District of Chicago, in the Circuit Court of Cook County, No. 156,775.

Silverman versus Sanitary District of Chicago, in the Sanitary District of Chicago, in the Circuit Court of Cook County, law, No. 162,789.

American Forcite Powder Manufacturing Company versus the Sanitary District of Chicago et al., in the Circuit Court of the United States, Northern District of Illinois, Chancery, No. 24,284.

McCaughey versus the Sanitary District of Chicago, in the Superior Court of Cook County, law, No. 179,197.

Burke versus the Sanitary District of Chicago, in the Circuit Court of Cook County, law, No. 165,515.

Hero versus the Sanitary District of Chicago, in the Circuit Court of Cook County, law, No. 165,616.

Goerner versus the Sanitary District of Chicago, in Circuit Court of Cook County, Law, No. 166,547.

COOK COUNTY CASES.

The following are the cases tried or otherwise disposed of in Cook County.

Payette et al versus Sanitary District of Chicago, in the Superior Court of Cook County, Gen. No. 143,959. This case was tried before Judge Holdom, who instructed the jury to find a verdict for the defendan and enter judgment thereon. An appeal ha been prayed to the Appellate Court.

Smith & Eastman versus the Sanitary District of Chicago, in the Circuit Court of Cook County, Gen. No. 143,680. This sui was dismissed by stipulation.

Bridget McGuirl versus the Sanitary Dis

trict of Chicago. in the Circuit Court of Cook Cook County, Gen. No. 161,695. After a trial lasting about a week, a verdict was rendered in favor of the plaintiff for $17,-500.00. A motion for a new trial was overruled and judgment entered on the verdict. An appeal has been prayed to the Apellate Court by the defendant and allowed.

Smith & Eastman versus James Reddick, in the Circuit Court of Cook County, Gen. No. 181,650, was dismissed on stipulation and the tax warrants Nos. 1098 and 1100 were delivered to petitioner upon their executing a receipt in full as required by the Sanitary District.

Cuculich versus Griffiths & McDermott Construction Company and the Sanitary District of Chicago et al., in the Superior Court of Cook County, Gen. No. 186,681. Judgment was entered and satisfied in full.

The A. R. Beck Lumber Company versus Harlev, Sanitary District of Chicago et al., in the Circuit Court of Cook County, Gen. No. 176,474.

Aetna Powder Company versus Harlev and the Sanitary District of Chicago et al. in the Circuit Court of Cook County, Gen. No. 166,496.

Christian Brier versus Mason, Sanitary District of Chicago et al. in the Circuit Court of Cook County, Gen. No. 164,066. Was reached before Judge Hanecy and dismissed for want of prosecution.

Burke versus Sanitary District of Chicago and Heldmaier & Neu, in the Superior Court of Cook County, Gen. No. 188,670.

Devecchio versus Sanitary District of Chicago et al., in the Circuit Court of Cook County, Gen. No. 167,976. Was dismissed as to the Sanitary District and judgment was entered and satisfied as to the Qualey Construction Company.

Lannon versus the Sanitary District of Chicago and the Griffiths & McDermott Construction Company, in the Circuit Court of Cook County, Gen. No. 170,265. Was dismissed for want of prosecution and judgment for costs entered against plaintiff.

Carlson versus the Sanitary District of Chicago et al., in the Circuit Court of Cook County, Gen. No. 172,257. Was dismissed for want of prosecution and judgment for costs entered against plaintiff.

Chicago, Wilmington and Vermillion Coal Company versus Angus & Gindele and the Sanitary District of Chicago, in the Circuit Court of Cook County, Gen. No. 163,936.

Kent versus the City of Chicago, Sanitary District of Chicago et al., in the Circuit Court of Cook County, Gen. No. 148,033. A hearing was had before Judge Burke and an injunction was granted restraining the collection of taxes in the sum of $2,774.00, a small portion of which was claimed by the Sanitary District.

Wright versus the Western Dredging and Improvement Company and the Sanitary District of Chicago, in the Circuit Court of Cook County, Gen. No. 186,258. Was dismissed on stipulation as to the Sanitary District.

John King, for the use of Bridget Mitchell, executrix, versus the Sanitary District of Chicago et al., in the Circuit Court of Cook County, Gen. No 195,279. Was dismissed and judgment for costs entered in favor of the District and satisfied.

Regan versus Schailer and Schnigiau and Sanitary District of Chicago, in the Circuit Court of Cook County, Gen. No. 164,751. Judgment entered and satisfied in full.

Baxter versus Smith & Eastman and Sanitary District of Chicago et al., in the Superior Court of Cook County, law, No. 178,133.

The Sanitary District of Chicago versus Bernard Neu et al. A verdict was rendered by the jury awarding William G. Roelker the sum of $3,000 for certain premises adjacent to the Chicago River.

Sanitary District of Chicago versus Henry A. Dupont et al. After a trial lasting two weeks the jury rendered a verdict awarding Henry A. Dupont $7,395.00, to Cook & Rathbone Company, $1,970.00.

District versus (Neu) Cosmopolitan Electric Company. Condemnation $6,000.00.

SUPREME COURT.

Chester S. Allen versus the Sanitary District of Chicago. Abstracts and briefs have been prepared by this Department and filed with the Clerk of the Court.

The George F. Blake Manufacturing Company versus the Sanitary District of Chicago. Abstracts and briefs have been prepared by this Department and filed with the Clerk of the Court. This case has been reached and taken under advisement.

The Cook & Rathborne Company versus the Sanitary District of Chicago. This case has been reached and taken under advisement.

In the two cases of the Sanitary District of Chicago, appellant, versus August Hasse et al., opinions were rendered affirming the judgment of the lower court and holding that the Sanitary District is liable for attorneys fees incurred by appellee in preparing to defend the condemnation case which was subsequently dismissed.

Sanitary District of Chicago versus Wm. J. Adam et al. Appeal from the Circuit Court of Will County.

Sanitary District of Chicago versus M. P. Schuster et al. Briefs have been prepared and filed by the District.

Sanitary District versus James Martin, Treasurer of Will County. Appeal from Circuit Court of Will County.

IN U. S. COURTS.

In the case of the Sanitary District of Chicago versus the Chicago Terminal Transfer Railroad Company et al., No. 17,430, in the County Court of Cook County, the petition of the defendant to remove the case to the Circuit Court of the United States for the Northern District of Illinois, was argued before Judge Carter and granted. The defendant thereupon filed in the Circuit Court of the United States a transcript of the record of the County Court.

Ricker, Lee & Co. versus the Sanitary District of Chicago, in the United States Court of Appeals, was argued before Judges Showalter, Grosscup and Woods and taken under advisement. The proceedings in the matter of taking the account have been concluded.

In the case of Sanitary District of Chicago vs. the Chicago Terminal Transfer Railroad Company et al., No. 17,137, the petition of the defendant to remove the case from the County to the Circuit Court of the United States was argued before Judge Battan and denied. The defendant thereupon filed in the Circuit Court of the United States a transcript of the record of the County Court. A motion has been filed by the Sanitary District to remand to the State Conrt.

The Sanitary District of Chicago versus the Chicago and Western Indiana Railroad Company et al. The defendant's motion to dismiss the petition was overruled. The District has filed a stipulation agreeing to construct a three-track bridge in accordance with the order of the court.

WILL COUNTY.

Cases tried or otherwise disposed of in Will County:

The Sanitary District of Chicago versus Jacob Adler and the City of Joliet, No. 14,952, in the Circuit Court of Will County.

Sanitary District of Chicago versus James Lonergan and the City of Joliet, No. 14,953, in the Circuit Court of Will County.

The subject matter of these suits was involved in deciding the question of title passed on in the condemnation suit of the District versus Barstow et al.

In the case of the Sanitary District of Chicago vessus Lina E. Barstow et al., in the Circuit Court of Will County, after trial lasting almost three months, the jury brought in a verdict awarding to the defendants the amounts placed opposite their respective names in the following list:

Patrick R. Bannon	$ 6,000 00
William J. and Robert M. Adam and Janet Royer	21,135 00
Truman A. Mason	3,045 87
Fred C. and W. C. Wilcox	14,014 13
Eliza, James, Joseph and Lizzie Paul, Mary Ann Boyd, Fannie Newman and Ida Durst	4,000 00
John P. King	7,212 80
C. W. Brown	1,862 20
Elizabeth, Lavinia, Corydon, Addison E. and Myron D. Holmes	25 00
Florence, Maud S. and Stanley Holbrook	250 00
Royal E. Barber	160 00
Frank Murphy	800 00
Robert Kimball	25 00
Giles Spring, Alanson Sweet and Alexander McGregor	35 00
Millie Alexander, Rose Fleischer, Charles Kahn, Julia Lobell, Erma, Cora P., Isaac and Lida Kahn	$ 800 00
Michael Calmer, Trustee	2,100 00
Daniel Kimball	5 00
Michael Bannon	4,800 00

The final disposition of this case secures to the District practically the entire right of way for its Channel through the City of Joliet.

The jury's award was regarded as a substantial victory for the District. Conditions existed which made the department fear excessive values might be given, but by persistent effort and work an outcome favorable to the District was attained. Great credit is due the local attorneys for their efficient and unselfish labor during all the litigation. Near the end of the last trial it became necessary to move the court to discontinue the case and to file on behalf of the Sanitary District, but in the name of the People of the State of Illinois, a petition asking the citation for contempt of court of certain persons whom it was therein claimed had attempted to improperly influence the jury. The Court issued the citation and answers under oath were filed by the accused to the interrogatories of the State, which answers the Court finally held were sufficient in law and released the respondents and denied the motion to discontinue the case. This development added to the work of the trial, but doubtless had its proper effect.

The Sanitary District of Chicago versus M. P. Schuster. In this case the jury brought in a verdict awarding to the owners of the premises in question the sum of $4,819.00, which was deposited with the County Treasurer, in accordance with the order of the court.

The case of Chester S. Allen versus the Sanitary District of Chicago was tried before Judge Hilscher, and a verdict rendered finding title to certain property in the plaintiff. This case was appealed to the Supreme Court and is still pending.

Sanitary District of Chicago versus James W. Martin, in the Circuit Court of Will County, No. 16,686.

Sanitary District of Chicago versus James Martin, in the Circuit Court of Will County, No. 16,052.

APPELLATE COURT.

ie Phœnix Powder Manufacturing Comy versus the Sanitary District of Chio. An opinion has been rendered conning the judgment of the lower court and uiring the Sanitary District to deliver to complainant the warrant in question for 3,90.

ason, Hoge, King & Co. versus the Sanity District of Chicago.

eorge F. Blake Manufacturing Company versus the Sanitary District of Chicago. An opinion was rendered by Judge Adams overruling the judgment of the lower court in favor of the District.

IN GENERAL.

The department expenses for the year just closed were as follows:

SALARIES.

Attorneys	$17,400 03	
Office force	5,250 00	
		$22,650 03

GENERAL EXPENSES.

Court costs, right of way	$ 7,644 94	
Expense account, witness fees, etc.	20,591 13	
Legal services	18,964 96	
Books, printing and stationery	2,594 11	
Sundries	18 00	
		$49,813 14
Total departmental expenditures		$72,463 17

RIGHT OF WAY.

The expenditures for the year 1898, for land acquired, are given in the summarized statement below, and a tabulated description of same is attached to this report. All the condemnation cases pending in Will County during 1898 were settled, and all agreements for the acquisition of right of way were consummated. The following is the statement:

Will County—		
Abstract account	$ 1,308 20	
Tax account	4,442 87	
		$ 5,751 07
Right of way—		
By purchase	$86,782 50	
By condemnation	206,589 00	
For use of Canal lands under decree of Dec. 22, 1898	*39,630 00	
Leasehold interest	400 00	
		$333,401 50

*By agreement and under the amended decree entered December 22, 1898, in the case of the Canal Commissioners versus Sanitary District of Chicago, in Will County Circuit Court, the sum of twelve thousand ($12,000.00) dollars was paid the Economy Light and Power Company for damages caused by loss of water power during construction of the Channel through Joliet.

Cook County—

Abstract account....	$ 1,085 00	
Rent of By-passes....	3,058 34	
		$ 4,093 34

Right of Way—

By purchase.....	$13,564 50	
By condemnation.....	18,365 00	
		$ 31,929 50

Total expenditures Land Account....	$375,175 41

The land account should be credited with the sum of seventeen hundred seventy-nine and eighty-nine hundredths ($1,779.89) dollars, derived during the year from the following sources:

March 7—	
C. Mikelson, frame barn, Sec. 4..$	70 00
Geo. Nagle, rent land, Sec. 6, to Feb. 28, 1898	30 00
March 9—	
Frame cottage on Lot 5, Block 79, S. Sec. Add. to Joliet, sold to Mrs. Rose McGovern.....	50 00
April 20—	
Glass and window frames, Cushing building, sold to C. Hacker.....	50 00
Water wheel, etc., West Adam's dam, sold to W. Truby.....	62 50
Ceiling in Cushing building, sold to Jos. Butcher	10 00
May 7—	
Old tin sold to Robt. Walsh....$	1 00
Sharp property, sold to Lina E. Barstow	110 00
Old metal, Joliet right of way, sold to Ben. Simplitz.....	325 00
Old sheds, sold to Mrs. McGovern	3 00
Adams oil and storage shed sold to Joe Pye.....	20 00
Barn on Palmer's property, sold to J. B. Mickey	200 00
May 11—	
Lot of old tin.....	50
Elevator, water wheel, cottage, store house and shed.....	350 00
Shed and house at Bush Island.	10 00
Bannon's cottage	100 00
Adler's house.....	65 00
August 9—	
Material and buildings on Joliet right of way (see report F. W. C. Hayes, attorney, page 4987 of the Proceedings).....	238 00
September 16—	
Geo. P. Rugg, taxes refunded to District.....	3 06
B. E. Schroeder, taxes refunded to District.....	6 83
October 10—	
Geo. Nagle, rent land contract Sec. 6 to Sept. 1, 1898.....	45 00
November 28—	
Geo. Nagle, rent land contract Sec. 6 to Dec. 21, 1898.....	30 00
	$ 1,779 89

Making the total net expenditures of this department, for all purposes, during the year as follows:

Right of way, land account.....	$375,175 41
Less credits as above.....	1,779 89
Net expenditures land account..	$373,395 52
Departmental expenses (current).....	72,463 17
Total for year 1898.....	$445,858 69

During the year about 31,200 square feet have been acquired along the Chicago River, at an average cost of about one ($1) dollar per square foot, including land damages awarded by decree of court. It comprises all the land acquired in Cook County in 1898. With the exception of one tract (Schuster) all the land acquired in Will County is located within the corporate limits of the City of Joliet and consists entirely of subdivided lots.

The following tables, marked respectively Exhibits A, B and C, show all the lands, by tract numbers, acquired for the corporate purposes of the District during the past year and since the organization of the District,

the manner of their acquirement, the date of purchase, whether by decree or otherwise, description of the premises acquired, the counties where located, the consideration paid, and such other information as will give a partially correct understanding of the labor involved in the acquiring of the right of way. Exhibit B shows the property transferred to the West Park Commission and railroad companies:

EXHIBIT A—TABLE I.

RIGHT OF WAY ACQUIRED ALONG CHICAGO RIVER DURING THE YEAR 1898.

Tract No.	DESCRIPTION.	Area sq. ft.	Name of Owner.	When and How Acquired.	Price.	Remarks.
9	All that part of Lot 1, N. K. Fairbank's part of part of the North fraction of the N. W. ¼ of Section 28, T. 38 N., Range 14, East of the Third Principal Meridian, lying south of the line described as follows: Beginning at a point in the east line of Lot 1, 295 feet from the south line of Lumber street and extending westerly intersecting the east line of Lot 2 of Morris & Johnson's Subdivision of eight acres in the North fraction of the N. W. ¼ of Section 28, T. 39 N., R. 14 East of the Third Principal Meridian, at a point 278.50 feet from the north line of said Lot 2, being the continued south line of Lumber street.					
9a	Also all that part of Lots 1 and 2, Morris & Johnson's Sub. of 8 acres in the North fraction of the N. W. ¼ of Sec. 28, T. 39 N., R. 14, East of the Third Principal Meridian, lying south of a line described as follows: Beginning at a point in the East line of Lot 1, N. K. Fairbank's part of part of N. W. ¼ of Section 28, T. 39 N., R. 14, East of the Third Principal Meridian, 295 feet from the South line of Lumber street; thence westerly intersecting the west line of Lot 2, Morris & Johnson's Sub., 278.50 feet from the north line of said lot (being the continued south line of Lumber street) to its intersection with the north dock line of the South Branch of the Chicago River.	7395	Henry A. Dupont. Cook & Rathbone Co., lessees.	June 13, cond'n.	$9,365 00	This amount includes $400 for temporary occupation during construction, and $1,570 for rental value of lease of property taken.
10	All that part of Lots 24 and 25 in Greene's South Branch Addition to Chicago, being the North fractional part of Section 29, T. 35 N., R. 14, East of the Third Principal Meridian, excepting the east 16.72 acres thereof lying southerly of a line described as follows: Beginning at a point on the east line of Throop St., 262 feet southerly of the N. W. corner of Lot 24; thence running northeasterly intersecting the east line, continued, of Lot 25 at a point 304 feet southeasterly of the N. E corner of said Lot 25 to its intersection with the west line of Throop's Canal.	9707.50	Jennie Lind Spry, et al.	Aug. 16, pur.	9,707 50	

11	Lots 21, 22 and 23 in Greene's South Branch Addition to Chicago, being the North fractional part of Section 29, T. 39 N., R. 14, East of the Third Principal Meridian (excepting the east sixteen and seventy-two one hundredths acres thereof), lying southerly of a line described as follows: Beginning at a point in the west line of Throop Street, 253 feet southerly of the northeast corner of Lot 23; thence southwesterly to a point in the west line of Lot 21, distant 219 feet from the northwest corner of said Lot 21, and in the east dock line of Sampson's Canal.	3857	Henrietta Ayres Boal.	July 29, pur.	3,857 00
13	All that part of Lot 15 of the Re-subdivision of Lots 172 to 174, both inclusive, and Lots 11 to 19, both inclusive, together with that part of Lumber street lying between Sampson's and Stetson's Canals and the street between Lots 12 and 13; all in Greene's South Branch Addition to Chicago, lying southerly of a line described as follows: Beginning at a point in the west line of Loomis street, said point being 83 feet south of the N. E. corner of Lot 12 of said Re-subdivision, thence northeasterly to the southeast corner of said Lot 15 at the northerly dock line of the South Branch of the Chicago River.				
14	Also all that part of Lots 11 and 12 of the Re-subdivision of Lots 172 to 174 (both inclusive) and Lots 11 and 19 (both inclusive) together with that part of Lumber street lying between Sampson's and Stetson's lands and the street between Lots 12 and 13, all in Greene's South Branch Addition to Chicago lying southerly of a line described as follows: Beginning at a point in the west line of Loomis street, said point being in the east line of and 83 feet south of the N. E. corner of said Lot 12, thence at an angle of 53 degrees with said west line of Loomis street southwesterly to a point in the north dock line of South Branch of the Chicago River; said point in dock line being the second angle south of the N. W. corner of said Lot 11.	6857	William G. Roelker.	June 13, cond'n.	3,000 00
5	All that part of Lot 3, Block 33, of Canal Trustees' Subdivision of the West ½ of Section 21, T. 39 N., R. 14, East of the Third Principal Meridian, and as much of the S. E. ¼ as lies west of the South Branch of the Chicago River, lying northerly of the following described line, to-wit: Beginning at the dividing line between said Lot 3 and Lot 2 at its intersection with the south dock line of the South Branch of the Chicago River; thence southwesterly to a point in the dividing line between Lot 3 and Lot 4, distant 180 feet from the north line of Grove street.	3363	Cosmopolitan Electric Company.	Aug. 24, cond'n.	6,000 00

EXHIBIT A—TABLE II.

RIGHT OF WAY THROUGH JOLIET ACQUIRED DURING THE YEAR 1898 FROM ILLINOIS AND MICHIGAN CANAL COMMISSIONERS.

Tract No.	DESCRIPTION.	Area. Sq. ft.	Date.	Amount.	Remarks.
1a	All that part of Block 1, North Joliet, which lies within the boundary line of the proposed 300-foot wide channel, the center line of which is described as follows: Beginning at the point of intersection of the east line of Section 4, T. 35 N., R. 10, East of the Third Principal Meridian, and a line parallel to the westerly reserve line of the Illinois and Michigan Canal, said parallel line being 475 feet distant from said westerly reserve line measured at right angles; running thence southwesterly along said parallel line for a distance of 816.29 feet to a point of curve; running thence on a curve to the left, having a radius of 1449 feet for a distance of 1002.13 feet to a point of reverse curve; running thence on a curve to the right, said curve having a radius of 628 feet for a distance of 433.60 feet to a point of tangent.				
5a	Also that part of the S. E. ¼ of Section 9, T. 35 N., R. 10, East of the Third Principal Meridian, lying west of the center line of Joliet street produced, east of the Desplaines River and north of the north line of Reed street in the City of Joliet.	25,199	Aug. 24.	$7,630 00	These tracts were acquired under terms of agreement with Canal Commissioners of date of March 16, 1897, and payment for same was made August 24th, 1898.
11	Also that part of Lot 2, Block 3, Old Town of Joliet, lying east of the east wall of the Illinois and Michigan Canal.				
11a	All that part of Blocks 3 and 8 and all that part of Benton street, Desplaines street and Webster street, Old Town of Joliet, lying west of the east wall of the Illinois and Michigan Canal.				
38a	Also a certain tract of land in the S. E. ¼ of Section 9, T. 35 N., R. 10 East of the Third Principal Meridian, north of Jefferson Street, west of the Desplaines River and east of a line 56 feet distant from and parallel to the center line of the Illinois and Michigan Canal, said center line running through a point in the south line of Block 16, West Joliet produced, 170 feet distant from the S. W. corner of said block and forming an angle of 95 degrees and fifty minutes with said south line measured from north to west.				

	he S. W. ¼ of Section 3, T. 35 N., R. 10, East of the Third Principal Meridian. Beginning at the point of intersection of the east margin of the Desplaines River with the westerly 90 feet reserve line of the Illinois and Michigan Canal; thence on a normal line to the center thread of the Desplaines River; thence southerly and southwesterly along said center thread to its intersection with the westerly reserve line of the Illinois and Michigan Canal; thence northeasterly along said westerly reserve line to the place of beginning.	Containing 5.22 acres.			
75b	All that part of the N. W. ¼ of Section 3, T. 35 N., R. 10, East of the Third Principal Meridian, described as follows: Beginning at the point of confluence of the center thread of the West Channel of the Desplaines River with the center thread of the East Channel of said river; thence east on a normal line to the west 90 feet reserve line of the Illinois and Michigan Canal; thence northeasterly along said west reserve line to its intersection with the west right of way line of the Chicago, Santa Fe & California Railway; thence northwesterly along said west right of way line to the north line of the N. W. ¼ of said Section 3; thence west along said north line to its intersection with the center thread of the Desplaines River; thence southerly and southwesterly along said center thread to the point of beginning.		Dec. 14.	$32,000 00	$12,000 of this amount was paid to the Economy Light and Power Company for damages by loss of water power during construction. These tracts were acquired under terms of decree entered in Will County Circuit Court. These tracts are situated north of the city limits of Joliet.

EXHIBIT A—TABLE III.

RIGHT OF WAY ACQUIRED IN 1898—JOLIET.

Tract No.	DESCRIPTION.	Name of Owner.	How and When Acquired.	Amount.	Remarks.
1 and pt. 2	N. ½ Lot 1, Block 2, Old Joliet; also that part of the N. E. ¼ of Section 9 bounded on the west by the Desplaines River, on the North by Jackson street, on the east by a line drawn due north from the center of the alley running north and south in said Block 2, to the south line of Jackson street, and on the south by the W. ½ of said alley and the north line of Lot 1 in said Block 2.	Lina E. Barstow.	Jan. 4, pur.	$ 4,425 00	
97	Lot 5, Block 79, School Section Addition to the City of Joliet.	Rose McGovern.	Jan. 7, pur.	1,500 00	
98	Lot 7, Block 79, School Section Addition to the City of Joliet.	Peter E. McGovern.	Jan. 7, pur.	700 00	
61	All that part of Lot 8, Block 18, School Section Addition to Joliet, beginning at a point on the north line of said lot, 115 feet west of the east line of said lot; thence running diagonally across said lot to a point 20 feet east of the western boundary line of said lot, thence running east 71 feet along the southern boundary line of said lot, thence diagonally in a northeasterly direction across said lot to a point in the eastern boundary line thereof, 21 feet south of the northern boundary line of said lot; thence along said eastern boundary line to the northern boundary line of said lot; thence along said northern boundary line west 115 feet to the point of beginning.	Edward and Mary Kelly.	Jan. 18, pur.	1,100 00	
42b	Lot 3 in Daly, Grinton & Mack's Subdivision of Lot 1, Block 17, West Joliet in the S. E. ¼ of Section 9.	M. Cushing.	Jan. 26, pur.	10,000 00	
95 and 96	The S. ½ of Lot 1 in Block 79, also Lot 4 in Block 79, School Section Addition to Joliet.	Timothy Fallon.	Feb. 5, pur.	2,400 00	
69, 75	Part Lot 7, Block 25, S. S. Addition to Joliet.				
76, 77, 78	Part Block 38, S. S. Addition to Joliet.				
79, 80, 81	Lot 1, Block 45, S. S. Addition to Joliet.				
82, 83, 84	Lot 2 Block 45, S. S. Addition to Joliet.				
85, 86, 100	Lot 3, Block 45, S. S. Addition to Joliet.				
101, 102, 103	Lot 4, Block 45, S. S. Addition to Joliet.				
104	Lots 1, 2 and 3, Block 57, S. S. Addition to Joliet.				
	Lot 6, Block 57, S. S. Addition to Joliet.	W. J. Adam, et al.	Jan. 12, cond'n.	77,100 00	Including leaseholds, machinery, etc. Appealed by Sanitary District to Supreme Court and still pending.
	Lot 7, Block 57, S. S. Addition to Joliet.				
	Lot 1, Block 62, S. S. Addition to Joliet.				
	Lot 4, Block 62, S. S. Addition to Joliet.				
	Lot 4, Block 57, S. S. Addition to Joliet.				
	Lot 5, Block 57, S. S. Addition to Joliet.				
	Lot 2, Block 62, S. S. Addition to Joliet.				
	Lot 6, Block 62, S. S. Addition to Joliet.				

30, 31 45, 46 50, 51, 52	Lot 2 and the north 28 feet of Lot 3, Block 24, Old Town of Joliet and Lots 6 and 7 in Daly, Grinton & Mack's Subdivision of Lot 1 in Block 17 and Lot 5 in said Block 17 in West Joliet, also Lots 3 and 4 in Block 4, School Section Addition to Joliet.	John E. Bush.	Feb. 12, pur.	$18,000 00
99	Lot 8, Block 79, School Section Addition to Joliet.	Mary and Owen Brice	Feb. 8, pur.	2,500 00
105 to 109 incl.	Lots 13, 14, 15, 16 and 17 in Goodspeed's Subdivision of Block 91, School Section Addition to Joliet.	Chas. F. Goodspeed, et al.	Feb. 12, pur.	1,750 00
122	Lot 17 in Murphy & Bennitt's Subdivision of Block 109, School Section Addition to Joliet.	John and Mary Scott	Feb. 18, pur.	550 00
9	Lot 3, Block 3, Old Town of Joliet.	Bridget McNiff.	Feb. 12, pur.	1,200 00
42a, 43, 44	Lots 2, 4 and 5 of Daly, Grinton & Mack's Subdivision of Lot 1, Block 17, West Joliet.	Eugene Daly.	Feb. 17, pur.	10,500 00
87 to 94 and 150, 151, 152	Lots 5, 7 and 8 in Block 62, School Section Addition to Joliet, also Lots 1, 6, 7, 8 and 13, Block 74, School Section Addition to Joliet, also Lots 5, 9 and 12, Block 74, School Section Addition to Joliet.	William J. Adam.	Feb. 9, pur.	7,500 00
112, 113 116, 117	Lots 11, 12, 13 and 14 in H. S. Bond's Subdivision of Block 96 in School Section Addition to Joliet.	John Hebert.	Feb. 19, pur.	950 00
38a	Leasehold of the island between the canal and river, north of Jefferson street in the City of Joliet.	John Ryan.	Feb. 15, pur.	400 00
58, 62 63, 65	Lot 1 and the north 3 feet of Lot 4, Block 18, also Lots 2, 3 and 7 in said Block 18, all in School Section Addition to Joliet.	Jacob Adler.	Feb. 21, pur.	4,500 00
39, 40, 41 41b, 47	Lots 1 and 2, Block 25, Old Town of Joliet, also that part of Block 25 which lies south of Lot 2 in said Block 25 and north of a line 66 feet north of the north line of Washington street; also Lot 2, Block 17, West Joliet and an island in the Desplaines River south of Jefferson street.	F. S. Robinson. T. W. Robinson. American Stone Co.	Feb. 21, cond'n	36,000 00
41d	The N. 20 5-12 feet of Lot 1, Block 4, School Section Addition to Joliet, and that part of Lot 6 of M. E. Bannon's Subdivision in the S. W. corner of the east fraction of the S. E. ¼ of Section 9 and in the N. W. corner of the east fraction of the N. E. ¼ of Section 16, T. 35 N., R. 10, East of the Third Principal Meridian, occupied by a dwelling house on the south half of said Lot 6 and a strip of land 3 feet wide along the north side of said dwelling house situated in the City of Joliet.	Margaret L. Duggan.	Feb. 25, pur.	450 00
58a	The S. 24 feet of the N. 27 feet of Lot 4, Block 18, School Section Addition to Joliet.	Julia Ann Barber.	Feb. 25, pur.	2,000 00
Pt. 13	The N. ½ of Lot 7, Block 8, Old Town of Joliet.	Albert L. Brandon.	Feb. 28, pur.	1,100 00
54	All that part of Lot 1, in Block 4, School Section Addition to Joliet, lying south of the N. 20 5-12 feet thereof in the N. E. ¼ of Section 16, T. 35 N., R. 10, East of the Third Principal Meridian.	People's Loan and Homestead Association, Joliet, Ill.	Feb. 28, pur.	1,350 00

EXHIBIT A—TABLE III.—*Continued.*

RIGHT OF WAY ACQUIRED IN 1898—JOLIET.

Tract No.	DESCRIPTION.	Name of Owner.	How and When Acquired.	Amount.	Remarks.
N. ½ 4	The N. ½ of Lot 3, Block 2, Old Town of Joliet.	Frederick W. Woodruff. Nellie D. Woodruff.	Feb. 25, pur.	$ 620 62	
2 and 3	The S. ½ of Lot 1 and all of Lot 2 in Block 2 in Old Town of Joliet.	The Economy Light and Power Co.	Feb. 25, pur.	1,861 88	
60	The W. 60 feet of the E. 110 feet of Lot 5, Block 18, School Section Addition to Joliet.	James Lonergan.	Feb. 26, pur.	175 00	
118, 119	Lots 20 and 21 in H. S. Bond's Subdivision of Block 96, School Section Addition to Joliet.	Ann Haley.	March 14, pur.	500 00	
127	All that part of Block 132, School Section Addition to Joliet lying west of a line running from a point on the north line of said block which is distant 520 feet from the west line of River street, southwesterly to a point in the north line of South street which is distant 600 feet from the west line of said River street and situated south of the N. 50 feet of said Block.	Ann Haley. Annie Gaynor. John Gaynor.	March 15, pur.	700 00	
S. ½ 4	The S. ½ of Lot 3, Block 2, Old Town of Joliet.	Howard Bliss Francis Ethan E. Wetherbee.	March 15, pur.	500 00	
pt. of 18	The N. ½ of Lot 4, Block 8, in the Old Town of Joliet.	Mary Brannon. Ellen J. Fiddyment.	March 21, pur.	500 00	
13a, 13b 14, 14a 15, 16 18a	The W. 35 feet of the N. ½ and W. 16 feet of the S. ½ of Lot 7, also the W. 30 feet of Lot 6, also the W. 30 feet of Lot 5, also as much of Lots 1 and 2 and the S. ½ of Lot 4 as lies east of the east wall of the Illinois and Michigan Canal, as the same is now located, all in Block 8, in the Old Town of Joliet.	Frances W. Plant.	Feb. 21, pur.	8,250 00	
42	Lot 1 of Daly, Grinton & Mack's Subdivision of Lot 1, Block 17, West Joliet.	John E. Bush.	Mch. 21, cond'n.	19,000 00	
124, 125 126 and 127a	Block 115, that part of Block 125 west of a point on the south line of Duncan street, 240 feet west of the west line of River street, thence southerly to a point in the south line of said block, 520 feet west of the west line of River street, also all that part of the N. 50 feet of Block 132, lying west of a line drawn from a point in the north line of said Block 132, which is 520 feet from the west line of River street to a point in the north line of South street, 600 feet from the west line of River street, all in the School Section Addition to Joliet; also Block 116, School Section Addition to Joliet.	Thomas Bossom.	April 7, pur.	3,000 00	
56	Lot 5, Block 4 in School Section Addition to Joliet.	City of Joliet.	April 13, pur.	3,000 00	

N. ½ 78	The E. ½ of Lot 5, Block 26 in School Section Addition to	Chas. A. Noble.	July 26, pur.	$ 150 00	Quit claim.
and 10	[illegible] part of the S. E. ¼ of Section 9, T. 35 N., R. 10, East of the Third Principal Meridian, lying west of Lots 2 and 3 in Block 2, Old Town of Joliet and east of the Desplaines River and north of the north line of Reed Street in the City of Joliet and south of the east and west alley in said Block 2, which lies east of the center line of Joliet Street produced.				
	That part of Lot 6, Block 3, Old Town of Joliet which lies east of the east wall of the Illinois and Michigan Canal.	Patrick R. Bannon.	Ap'l 12, cond'n.	6,000 00	
	That part of Lot 5, Block 3, Old Town of Joliet, which lies east of the east wall of the Illinois and Michigan Canal.				
	Lot 4, Block 3, Old Town of Joliet.				
	That part of Lot 1, Block 3, Old Town of Joliet which lies east of the east wall of the Illinois and Michigan Canal.				
17, 19, 20 22, 25, 26 34, 35	That part of Lot 3, Block 8, Old Town of Joliet, which lies east of the east wall of the Illinois and Michigan Canal.				
	Lot 1, Block 10, Old Town of Joliet.				
	Lot 2, Block 10, Old Town of Joliet.				
	Lots 1, 2 and 3 of Adams' Estate Subdivision of Lots 3 and 4, Block 10, Old Town of Joliet. That part of Lot 3, Block 9, Old Town of Joliet, which lies east of the east wall of the Illinois and Michigan Canal. That part of Lot 4, Block 9, Old Town of Joliet, which lies east of the east wall of the Illinois and Michigan Canal. That part of Lot 4, Block 17, Old Town of Joliet, which lies east of the east wall of the Illinois and Michigan Canal. That part of Lot 1, Block 24, Old Town of Joliet, which lies east of the east wall of the Illinois and Michigan Canal.	William J. Adam, et al.	Ap'l 12, cond'n.	21,135 00	
27, 28, 29	That part of Lot 1, Block 16, Old Town of Joliet, which lies east of the east wall of the Illinois and Michigan Canal. That part of Lot 2, Block 16, Old Town of Joliet, which lies east of the east wall of the Illinois and Michigan Canal. That part of Lot 3, Block 16, Old Town of Joliet, which lies east of the east wall of the Illinois and Michigan Canal.	Truman A. Mason, Fred C. Wilcox. William G. Wilcox.	Ap'l 12, cond'n.	17,060 00	
30	That part of Lot 4, Block 16, Old Town of Joliet, which lies east of the east wall of the Illinois and Michigan Canal.	Heirs-at-law of James Paul.	Ap'l 12, cond'n.	4,400 00	
31 and 32	That part of Lot 1, Block 17, Old Town of Joliet, which lies east of the east wall of the Illinois and Michigan Canal. That part of Lot 2, Block 17, Old Town of Joliet, which lies east of the east wall of the Illinois and Michigan Canal.	John P. King. C. W. Brown.	Ap'l 12, cond'n.	9,075 00	
23	That part of Lot 1, Block 9, Old Town of Joliet, which lies east of the east wall of the Illinois and Michigan Canal.	Elizabeth Holmes, et al.	Ap'l 12, cond'n.	25 00	
24	That part of Lot 2, Block 9, Old Town of Joliet, which lies east of the east wall of the Illinois and Michigan Canal.	Florence Holbrook, et al.	Ap'l 12, cond'n.	250 00	
53	Lot 7, Block 4, School Section Addition to Joliet.	Royal E. Barber.	Ap'l 12, cond'n.	160 00	

EXHIBIT A—TABLE III.—*Continued.*

RIGHT OF WAY ACQUIRED IN 1898—JOLIET.

Tract No.	DESCRIPTION.	Name of Owner.	How and When Acquired.	Amount.	Remarks.
123	Lot 17, Murphy & Bennitt's Subdivision of Block 109.	Frank Murphy.	Ap'l 12, cond'n.	$ 800 00	
66	West ½, Lot 2, Block 25, School Section Addition to Joliet.	Robert Kimball et al.	Ap'l 12, cond'n.	30 00	
71, 72 and 73a	Lot 1, Block 26, School Section Addition to Joliet. Lot 4, Block 26, School Section Addition to Joliet. W. ½ Lot 5, Block 26, School Section Addition to Joliet.	Giles Spring et al.	Ap'l 12, cond'n.	35 00	
110, 111 114, 115	Lot 3, H. S. Bond's Subdivision of Block 96, School Section Addition to Joliet. Lot 6, H. S. Bond's Subdivision of Block 96, School Section Addition to Joliet. Lot 4, H. S. Bond's Subdivision of Block 96, School Section Addition to Joliet. Lot 5, H. S. Bond's Subdivision of Block 96, School Section Addition to Joliet.	Millie Alexander et al.	Ap'l 12, cond'n.	800 00	
128 to 148 inclusive.	Lot 2, Block 2, South Park. Lot 3, Block 2, South Park. Lot 6, Block 2, South Park. Lot 7, Block 2, South Park. Lot 2, Block 4, South Park. Lot 1, Block 3, South Park. Lot 2, Block 3, South Park. Lot 3, Block 3, South Park. Lot 4, Block 3, South Park. Lot 5, Block 3, South Park. Lot 6, Block 3, South Park. Lot 31, Block 2, Addition to South Park. Lot 30, Block 2, Addition to South Park. Lot 29, Block 2, Addition to South Park. Lot 28, Block 2, Addition to South Park. Lot 1, Block 3, Addition to South Park. Lot 2, Block 3, Addition to South Park. Lot 3, Block 3, Addition to South Park. Lot 4, Block 3, Addition to South Park. Lot 5, Block 3, Addition to South Park. Lot 6, Block 3, Addition to South Park.	Michael Calmer, Trustee.	Ap'l 12, cond'n.	2,100 00	
41 and 41a	Lots 4, 5 and 6 of M. E. Bannon's Subdivision in the S. W. corner of the east fraction of the S. E. ¼ of Section 9, T. 35 N., R. 10, and in the N. W. corner of the east fraction of the N. E. ¼.	Michael E. Bannon.	Ap'l 12, cond'n.	4,800 00	
88	The east 65 feet of Lot 7 of Levi Doty's Subdivision of part of the S. ½ of the S. ½ of Sec. 4, T. 35 N., R. 10.	Ellen M. Smith et al.	Dec. 8, pur.	1,150 00	
84	Lots 113 to 122 incl. in Edgewater, being a subdivision of part of N. E. ¼ of the S. E. ¼, Sec. 4, T. 35 N., R. 10.	Patrick R. Bannon.	Dec. 8, pur.	1,900 00	

EXHIBIT A—TABLE IV.

RIGHT OF WAY ACQUIRED IN 1898—WILL COUNTY.

Tract No.	DESCRIPTION.	Section	Town.	Range.	Name of Owner.	How and When Acquired.	Amount.	Remarks.
44	Lots 1 to 14 incl., in Block 5 in Rosedale, in S. E. ¼. Lots 1, 4, 5 and 8, in Block 8 in Rosedale, in S. E. ¼. Lots 30 to 33 incl., in Block 6 in Rosedale, in S. E. ¼. Lots 1 to 20 incl., in Block 4 in Bosedale, in S. E. ¼. Lots 1 to 29 incl., in Block 6 in Rosedale, in S. E. ½. Lots 1 to 54 incl., in Block 7 in Rosedale, in S. E. ¼. Lots 1 to 20 incl., in Block 3 in Rosedale, in S. E. ¼. Lots 2, 3, 6, 7, 9 to 34 incl., in Block 8 in Rosedale, in S. E. ¼.	22	36	10	Mathias P. Schuster et al.	Aug. 3, cond'n.	$ 4,819 00	Appealed by Defendant Schuster and still pending.

EXHIBIT B—TABLE I.

PROPERTY TRANSFERRED TO WEST PARK COMMISSION AND RAILROAD COMPANIES SINCE ORGANIZATION—COOK COUNTY.

DESCRIPTION.	Date of Transfer.	Acres.	To Whom Transferred.
Part of S. E. ¼ of N. E. ¼ of Sec. 35, T. 39 N., R. 13 E.	June 23d, 1897.	.46	C., M. & N. R. R. (Ill. Central).
Part of W. ½, W. ½, S. W. ¼, Sec. 20, T. 39 N., R. 14 E.	Under agreement June 5, 1895.	1.55	West Chicago Park Commission.
Part of S. E. ¼, Sec. 25, T. 39 N., R. 13 E.		1.37	

EXHIBIT C TABLE I.

RIGHT OF WAY, FROM ORGANIZATION TO DECEMBER 31, 1898.—COOK COUNTY.

No. of Tract.	LOCATION.	Section	Town.	Range.	Acreage.	Price.	When and How Acquired.	Remarks.
217a	Part of the E. ½ of the S. W. ¼	30	39	14	10.42	$27,328 00	March 28, '94, purchase.	
217	Part of the E. ½ of the S. W. ¼	30	39	14	31.44	128,904 00	March 17, '94, purchase.	
216	Part of the E. ½ of the W. ½ of the S. W. ¼	30	39	14	13.83	48,405 00	March 17, '93, purchase.	
214	S. 100 ft. of the W. ½ of the W. ½ of S. W. ¼ (except boulevard)	30	39	14	.86	3,440 00	Nov. 15, '93, purchase.	
213a	Part of the W. ½ of the W. ½ of the S. W. ¼	30	39	14	7.24	29,805 54	July 23, '94, purchase.	
213	Part of the W. ½ of the W. ½ of the S. W. ¼	30	30	14			Sept. 20, '94, purchase.	1.55 acres transferred to West Park Commissioners.
207	Part of the S. E. ¼	25	39	13	3.36	20,000 00	Oct. 25, '95, purchase.	1.37 acres transferred to West Park Commissioners.
206	Lots 1 to 10 (incl.), Block 1, Manchester Sub. in S. E. ¼	25	39	13	10 lots	7,500 00	Feb. 21, '94, purchase.	
202	Lots 19 and 20, Block 1, Manchester Sub. in S. E. ¼	25	39	13	2 lots	1,000 00	Feb. 21, '94, purchase.	
200	Lots 23 to 32 (incl.), Block 1, Manchester Sub. in S. E. ¼	25	39	13	22 lots.	11,000 00	Feb. 21, '94, purchase.	
199	Lots 1 to 12 (incl.), Block 2, Manchester Sub. in S. E. ¼	25	39	13				
198a	Lot 73, Blk. 2, Manchester Sub. in S.E. ¼	25	39	13	1 lot.	500 00	Feb. 21, '94, purchase.	
198	Lot 14, Blk. 2, Manchester Sub. in S.E. ¼	25	39	13	1 lot.	500 00	Feb. 21, '94, purchase.	
197	Lot 15, Blk. 2, Manchester Sub. in S.E. ¼	25	39	13	1 lot.	500 00	Feb. 21, '94, purchase.	
196	Lot 16, Blk. 2, Manchester Sub. in S.E. ¼	25	39	13	1 lot.	500 00	Feb. 21, '94, purchase.	
194	Parts of Lots 17 to 32 (incl.), Block 2, Manchester Sub., S. E. ¼	25	39	13	pts. of 16 lots.	4,000 00	Jan. 10, '96, purchase.	
193	Block 3, Manchester Sub., S. E. ¼	25	39	13	2.426			
192	Part of Blk. 6, Manchester Sub., S. E. ¼	25	39	13	0.566			
191	Parts of Lots 10, 11 and 12 of Lichty's Sub. of Blocks 4 and 5, Manchester	25	39	13	0.100	20,000 00	Oct. 2, '97, purchase.	
173	Parts of Lots 37 and 38 of Lichty's Sub. of Blocks 4 and 5, Manchester	25	39	13				
171a	A strip of land in the W. ¼ of S. W. ¼ of the N. E. ¼	36	39	13	0.213			The two last tracts to be transferred to the C., M. & N.R.R.
159a	A strip of land 49 ft. wide in the S. E. ¼ of the N. W. ¼	36	39	13	1.418			
190	Lots 6, 7, 8 and 9, Block 5, Manchester	25	39	13	4 lots.	2,200 00	Nov. 23, '93, purchase.	$1,200 for lots, $1,000 for house and three barns on Lot 8.
189	Lots 1, 2, 3, 4 and 5, Block 5, Manchester			13	5 lots.	4,000 00	Dec. 27, '93, purchase.	$2,500 for lots, $1,500 for house, barns and lease.
188	Lot 22, Sabath's Resub. of Block 4, Manchester	25	39	13	1 lot.	475 00	July 14, '94, condemnation.	

187	Lot 21, Sabath's Resub. of Block 4, Manchester, in S. E. ¼	25	39	13	1 lot.	450 00	July 14, '94, condemnation.	
	Lot 20, Sabath's Resub. of Block 4, Manchester	25	39	13	1 lot.	500 00	Jan. 8, '94, purchase.	
186	Lot 19, Sabath's Resub. of Block 4, Manchester, in the S. E. ¼ of	25	39	13	1 lot	450 00	July 14, '94, condemnation.	
185	Lots 17 and 18, Sabath's Resub. of Block 4 of Manchester, in the S. E. ¼ of	25	39	13	2 lots.	1,700 00	Dec. 27, '93, purchase.	$1,000 for lots, $700 for cottage.
184	Lot 16, Sabath's Resub. of Block 4 of Manchester, in the S. E. ¼ of	25	39	23	1 lot.	500 00	Jan. 3, '94, purchase.	
183	Lot 15, Sabath's Resub. of Block 4 of Manchester, in the S. E. ¼ of	25	39	13	1 lot.	1,300 00	Dec. 27, '93, purchase.	$500 for lot, $800 for cottage.
182	Lot 14, Sabath's Resub. of Block 4 of Manchester, in the S. E. ¼ of	25	39	13	1 lot.			
181	Lot 13, Sabath's Resub. of Block 4 of Manchester, in the S. E. ¼ of	25	39	13	1 lot.	1,350 00	July 14, '94, condemnation.	
180	Lot 12, Sabath's Resub. of Block 4 of Manchester, in the S. E. ¼ of	25	39	13	1 lot.			
179	Lots 1 and 2, Sabath's Resub. of Block 4 of Manchester, in the S. E. ¼ of	25	39	13	2 lots.	1,700 00	Nov. 22, '93, purchase.	$1,000 for lots, $700 for buildings.
178	Lots 3 to 11 (incl.), Sabath's Resub. of Block 4 of Manchester, in the S. E. ¼ of	25	39	13	9 lots.	5,650 00	July 14, '94, condemnation.	$5,450 for lots, $200 for squatter's rights.
177	Lot 33, Sabath's Resub. of Block 4 of Manchester, in the S. E. ¼ of	25	39	13	1 lot.	500 00	Feb 21, '94, purchase.	
176	Lots 32, 33 and 30, Sabath's Resub. of Block 4 of Manchester, in the S. E. ¼ of	25	39	13	3 lots.	2,200 00	Jan. 2, '94, purchase.	$1,500 for lots, $700 for house and barns.
	Lot 29, Sabath's Resub. of Block 4 of Manchester, in the S. E. ¼ of	25	39	13	1 lot.	1,300 00	Jan. 2, '94, purchase.	$500 for lot, $800 for building.
	Lot 28, Sabath's Resub. of Block 4 of Manchester, in the S. E. ¼ of	25	39	13	1 lot.	1,100 00	Feb. 7, '94, purchase.	$500 for lot, $600 for building.
175	Lot 27, Sabath's Resub. of Block 4 of Manchester, in the S. E. ¼ of	25	39	13	1 lot.	500 00	Jan. 2, '94, purchase.	
	Lot 26, Sabath's Resub. of Block 4 of Manchester, in the S. E. ¼ of	25	39	13	1 lot.	450 00	July 14, '94, condemnation.	
	Lot 25, Sabath's Resub. of Block 4 of Manchester, in the S. E. ¼ of	25	39	13	1 lot.	900 00	Jan. 2, '94, purchase.	$500 for lot, $400 for house.
	Lots 24 and 23, Sabath's Resub. of Block 4 of Manchester, in the S. E. ¼ of	25	39	13	2 lots.	925 00	July 14, '94, condemnation.	$475 for Lot 23 and $450 Lot 24.
174	Lots 39 to 50 (incl.), Lichty's Sub. of Blocks 4 and 5, Manchester	25	39	14	12 lots.	4,375 00	Nov. 23, '93, purchase.	$3,600 for lots and $775 for buildings.
					Acres.			
172	Part of E. ½ of the N.W. ¼ of the N.E. ¼	36	39	13	13.70	41,100 00	June 30, '93, purchase.	
171	Part of W. ½ of the N.W. ¼ of the N. E. ¼	36	39	13	13.93	42,240 00	Dec. 18, '93, purchase.	
170	Part of E. ½ of the N. E. ¼ of the N.W. ¼	36	39	13	10.26	30,780 00	Nov. 9, '93, purchase.	
169	Part of N. ½ of the S. E. ¼ of the N.W. ¼	36	39	13	6.51	19,530 00	Sept. 1, '93, purchase.	
168	Part of W. ½ of the N. E. ¼	36	39	13	6.26	23,000 00	Aug. 15, '93, purchase.	
129	E. ½ of S. W. ¼ (north of R. R.)	4	38	13	5.04			
167	Part of E. ½ of E. ½ of N. W. ¼ of N. W ¼	36	39	13	1.63	4,890 00	Sept. 15, '93, purchase.	

EXHIBIT C—TABLE I.—*Continued.*

RIGHT OF WAY, FROM ORGANIZATION TO DECEMBER 31, 1898.—COOK COUNTY.

No of Tract.	LOCATION.	Section	Town.	Range.	Acreage.	Price.	When and How Acquired.	Remarks.
166a	Part of the W. ½ of the E. ½ of N. W. ¼ of the N. W. ¼	36	39	13	9.50	$23,000 00	Sept. 24, '94, purchase.	For collateral channel.
166	Part of the W. ½ of the E. ½ of N. W. ¼ of the N. W. ¼	36	39	13	0.63		July 21, '94, purchase.	
164	S. W. ¼ of N. W. ¼ (lying N. of S. F. R. R.)	36	39	13	22 87	68,604 00	June 20, '93, purchase.	
163	E. ½ of S. E. ¼ of N. E. ¼ (exc. R. Rs.)	35	39	13	17.44	55,820 00	March 21, '04, purchase.	$3,500.00 for improvement on land.
163a	Part of S. E. ¼ of N. E. ¼ of N. E. ¼ (S. of C., M. & N. R. R.)	35	39	13	0.46	2,000 00	July 6, '96, purchase.	Transferred to C., M. & N. R. R.
162	Part of N. W. ¼ of S. E. ¼ of N. E. ¼	35	39	13	0.73	1,825 00	Jan. 15, '94, purchase.	
161	E. ½ of S. W. ¼ of S. E. ¼ of N. E. ¼	35	39	13	5.10	11,730 00	Oct. 31, '93, purchase.	
160	W. ½ of S. W. ¼ of S. E. ¼ of N. E. ¼	35	39	13	5.10	11,730 00	Nov. 13, '93, purchase.	
159	E. ½ of S. E. ¼ (N. of S. F. R. R.)	35	39	13	17.39	38,258 00	Sept. 20, '93, purchase.	
158	Part of E. ½ of S. W. ¼ of N. W. ¼	35	39	13				
156	N. 264.6 ft. of W. ½ of S. E. ¼	35	39	13				
157	Part of W. ½ of S. W. ¼ of N. E. ¼	35	39	13	2.51	5,522 00	Nov. 13, '93, purchase.	
155	Part of W. ½ of S. E. ¼	35	39	13	9.43	25,000 00	June 26, '94, condemnation.	$3,782.50 allowed for plant.
153	Part of E. ½ of E. ½ of S. W. ¼ (N. of S. F. R. R.)	35	39	13	13.33	21,324 80	July 19, '93, purchase.	
152½	Part of W. ½ of E. ½ of S. W. ¼ (N. of S. F. R. R.)	35	39	13	13.40	21,443 20	July 13, '93, purchase.	
152	Part of W. ½ of S. W. ¼	35	39	13	7.22	11,552 00	Jan. 13, '94, condemnation.	
151	Part of W. ½ of S. W. ¼	35	39	13	20.28	32,000 00	July 7, '93, purchase.	
150a	Part of E. ½ of S. E. ¼	35	39	13	13.71	21,000 00	Sept. 11, '93, purchase.	
150	Part of E. ½ of S. E. ¼	35	39	13	13.63	20,445 00	Sept. 9, '93, purchase.	
149	Part of E. ½ of S. W. ¼ of S. E. ¼	34	39	13	18.19	25,050 00	Aug. 23, '93, purchase.	
139	Part of N. ½ of S. E. ¼ of N. E. ¼ of N. E. ¼	4	38	13				
147	Part of S. ½ of N. W. ¼ of S. W. ¼ of S. E. ¼	34	39	13	0.81	1,100 00	Aug. 23, '93, purchase.	
146	Part of N. ½ of S. W. ¼ of S. W. ¼ of S. E. ¼	34	39	13	5.46	8,000 00	Aug. 23, '93, purchase.	
140	Part of S. ½ of N. E. ¼ of N. E. ¼ of N. E. ¼	4	38	13				
145	S. ½ of S. W. ¼ of S. W. ¼ of S. E. ¼	34	39	13	12.35	16,450 00	Aug. 23, '93, purchase.	
138	S. ½ of S. E. ¼ of N. E. ¼ of N. E. ¼	4	38	13				
W. ½ 137	Part of E. ½ of S. E. ¼ of N. E. ¼	4	38	13				
E. ½ 137	Part of E. ½ of S. E. ¼ of N. E. ¼	4	38	13	1.33	2,300 00	Aug. 23, '93, purchase.	
136	Part of W. ½ of E. ½ of N. E. ¼	4	38	13	13.84	14,165 00	Aug. 23, '93, purchase.	

...	W. ½ of N. E. ¼ (N. of S. F. R. R.)	3	38	13	46.76	$70,000 00	Dec. 14, '93, purchase.	
141	Part of N. W. ¼	3	38	13				
144a	Part of W. ½ of N. E. ¼ (N. of S. F. R. R.)	3	38	13	0.07	1,000 00	Oct. 12, '93, purchase.	
143	Part of E. ½ of S. W. ¼	34	39	13	9.25	12,950 00	Aug. 23, '93, purchase.	
135	Part of S. 10 acres of N. W. ¼ of N. E. ¼	4	38	13	1.93	2,000 00	Oct. 7, '93, purchase.	
134	The N. 10 acs. N. 20 acs. of S. W ¼ of N. E ¼	4	38	13	9.94	10,000 00	June 30, '93, purchase.	
133	The S. 10 acres N. 20 acres of S. W. ¼ of N. E. ¼ (except R. R.)	4	38	13	9.86	9,860 00	Nov. 8, '93, purchase.	
132	Part of the N. 10 acres of the S. 20 acres of W. ½ of N. E. ¼	4	38	13	5.86	7,557 00	Jan. 15, '94, purchase.	
131	Part of the S. 10 acres W. ½ of N. E. ¼	4	38	13	1.29	1,290 00	Sept. 7, '93, purchase.	
130	Part of the E. ½ of N. W. ¼	4	38	13	22.64	23,206 00	Oct. 17, '93, purchase.	
128	Part of the E. ½ W. ½ of W. ½	4	38	13	13.93	13,930 00	Nov. 16, '93, purchase.	
127	Part of the E. ½ W. ½ of W. ½	4	38	13				
126	Part of the W. ½ W. ½ of W. ½	4	38	13	17.38	29,896 32	Aug. 14, '94, condemnation.	$21,666.66 property and $8,229.66 damage.
125	Part of the W. ½ W. ½ of W. ½	4	38	13				
124	Part of the E. ½ of S. E. ¼	5	38	13				
123	Part of the W. ½ of S. E. ¼	5	38	13	88.88	65,000 00	Aug. 21, '93, purchase.	
122	Part of the E. ½ of S. W. ¼	5	38	13				
121	E. ½ of N. W. ¼ (N. of I. & M. Canal)	8	38	13				
120	W. ½ of N. W. ¼ (N. of I. & M. Canal)	8	38	13	222.25	122,237 50	Sept. 18, '93, purchase.	
114	All lying north of I. & M. Canal in	7	38	13				
119	Part of the N. E. ¼ of S. W. ¼ of S. W. ¼	5	38	13	4.09	2,454 00	Sept. 15, '93, purchase.	
118	Part of the W. ½ of W. ½ of S. W. ¼	5	38	13	19.44	11,664 00	Sept. 5, '93, purchase.	
117	Part of the S. E. ¼ of S. W. ¼ of S. W. ¼	5	38	13				
116	Part of Blocks 28 and 29 Nickerson's Sub.	6	38	13	7.45	5,736 00	Jan. 30, '94, purchase.	
115								
113a	Part of the N. E. ¼	12	38	12	62.97	31,485 00	Aug. 23, '93, purchase.	
113	Part of the S. W. ¼ of S. E. ¼	1	38	12	6.34	1,600 00	Aug. 22, '93, purchase.	
110	Part of E. fraction of N. E. ¼	1	38	12				
109	Part of E. fraction of S. E. ¼	1	38	12				
108	Part of E. fraction of N. E. ¼ (N. of R.R).	12	38	12				
107	Part of E. fraction of S. E. ¼	1	38	12	68.27	21,496 00	May 9, '93, purchase.	
106	Part of E. fraction of N. E. ¼ (N. of R. R.)	12	38	12				
104	Part of S. fraction of E. ½ of N. E. ¼	12	38	12				
103	S. fraction W. ½ of N. E. ¼	12	38	12				
112	Part of N. W. ¼	12	38	12				
106a	W. fraction N. E. ¼ (N. of R. R.)	12	38	12				
105	Part of W. fraction N. E. ¼	12	38	12	119.55	25,200 00	April 1, '93, purchase.	
101	Part of N. fraction N. W. ¼	12	38	12				
99	Part of N. fraction S. W. ¼	12	38	12				
111	Part of S. E. ¼ S. W. ¼	1	38	12	6.03	1,959 75	Apr. 18, '98, purchase.	
102a	E. ½ of S. E. ¼ (N. of canal)	12	38	12	35.30	10,590 00	Apr. 8, '93, purchase.	
102	W. ½ of S. E. ¼ (N. of canal)	12	38	12				
100	S. fractional N. W. ¼	12	38	12	6.75	1,417 50	Apr. 17, '93, purchase.	
98	Part of S. fraction S. W. ¼	12	38	12	43.00	16,100 00	May 4, '93, purchase.	

EXHIBIT C—TABLE 1.—*Continued.*

RIGHT OF WAY, FROM ORGANIZATION TO DECEMBER 31, 1898.—COOK COUNTY.

No. of Tract.	LOCATION.	Section	Town.	Range.	Acreage.	Price.	When and How Acquired.	Remarks.
97	Part of S. fraction S. W. ¼	12	38	12				
91	S. E. ¼ (S. of river)	11	38	12				
90	N. W. ¼ (N. of canal)	13	38	12				Includes interest in lands in other parts, buildings, improvements, tracks, bridge over Illinois and Michigan canal, platforms, fixed machinery, ice plant and other property scheduled at length.
89c	Parts of the N. fraction N. E. ¼	14	38	12				
89b	Parts of the N. fraction N. E. ¼	14	38	12				
89a	Parts of the N. fraction N. E. ¼	14	38	12	223.47	$110,000 00	Feb. 28, '93, purchase.	
88	Part of the E. fraction N. E. fractional ¼	14	38	12				
86a	N. W. ¼ (S. of river)	14	38	12				
83a	Part of S. fraction of S. E. ¼ (between center of river and government line)	14	38	12				
82	S. E. ¼ (S. of river)	15	38	12				
95	Part of Lots 3 and 4 in Sub. of S.E. fract'l ¼	11	38	12	1.94	1,400 00	Apr. 26, '93, purchase.	
94	Part of Lots 3 and 4 in Sub. of S.E. fract'l ¼	11	38	12				
93	Part of Lot 5, in Sub. of S. E. frac'l ¼	11	38	12	3.38	2,900 00	Aug. 4, '93, purchase.	
92a	Part of Lot 6, in Sub. of S. E. frac'l ¼	11	38	12	27.58	11,000 00	Apr. 14, '93, purchase.	
92	Part of Lot 6, in Sub. of S. E. frac'l ¼	11	38	12				
98a	Part of S. fraction S. W. ½	12	38	12				
89	Part of N. fraction N. E. ¼	14	38	12	45.18	16,712 00	Mar. 18, '93, purchase.	
79	S. W. ¼ (N. of canal)	23	38	12				
76	Part of S. E. ¼ (bet. canal and river)	22	38	12				
85	E. ½ of S. E. ¼ of S. E. ¼ (bet. canal and R. R.)	14	38	12	6.41	2,506 50	Apr. 8, '93, purchase.	Includes $1,551.50 for leaseh'ds
88a	S. part of W. ½ of N. E. ¼	14	38	12				
86	N. W. ¼ (S. of river)	14	38	12				
84	W. ½ of S. E. ¼ (N. of canal)	14	38	12				
83	Part of S. W. ¼ (S. of river)	14	38	12	305.19	45,750 00	Apr. 19, '93, condemnation.	
80	N. W. ¼ (N. of canal)	23	38	12				
78a	Part of E. frac'l N. E. ¼ (E. of govm't line)	22	38	12				
81	N. E. ¼ (N. of canal)	23	38	12	0.13	13 00	Jan. 30, '93, purchase.	
78	Part of E. fractional N. E. ¼	22	38	12				
75	Part of S. E. ¼ (bet. canal and river)	22	38	12				
72	Part of N. E. ¼ (N. of canal)	27	38	12				
71	Part of N. E. ¼ (N. of canal)	27	38	12				Leases, leaseholds, bridges, tracks, switches, ice houses, machinery, etc., according to schedule.
69	Fraction of N. W. ¼ (bet. canal and river)	27	38	12	184.73	110,000 00	Dec. 12, '92, purchase.	
67	Fraction of S. W. ¼ (bet. canal and river)	27	38	12				
64	S. E. ¼ (bet. canal and river)	28	38	12				
61	Part of S. fraction N. E. ¼ (N. of canal)	33	38	12				
59	South fraction of N. W. ¼ (N. of canal)	33	38	12				
77	Part of N. E. ¼	22	38	12				
66	Part of S. E. ¼ of N. E. ¼	28	38	12	181.35	20,000 00	Nov. 28, 92, purchase.	
65	Part of N. fraction of N. E. ¼	28	38	12				
74	Part of S. E. ¼ (W. of river)	22	38	12	[illegible]	[illegible]	[illegible]	$4,775 for consequential dam-

70	Part of N. fraction N. W. ¼ of N. W. ¼	27	38	12	145.75	$45,420 60	Apr. 14, '93, condemnation	Includes $1,575.60 for buildings and improvements.
68	North fraction S. W. ¼	27	38	12				
	Part of S. E. ¼ of S. W. ¼	28	38	12	9.64	1,150 00	Dec. 9, '92, purchase.	
52	North fraction N. E. ¼	33	38	12				
51	Part of S. E. ¼ (bet. canal, river and road.)	32	38	12				
43a	S. W. ¼ (N. of canal)	5	37	12				
43	S. W. ¼ (N. of canal)	5	37	12	188.76	90,000 00	Nov. 9, '92, purchase.	Includes all leases, interests, bridges, tracks, gra ing, switches, ice plant, etc.
39	S. fraction of S. W. ¼ (bet. canal and river)	6	37	12				
37	Part of S. fraction of S. E. ¼ (bet. canal and river)	6	37	12				
22	S. fraction of S. E. ¼	11	37	12				
60	Part of N. fraction of N. W. ¼	33	38	12	67.21	16,802 00	Dec. 30, '92, condemnation	
58	Lot 1 in Subd. of S. W. ¼ (bet. canal and river)	33	38	12				
57	Lot 1 in Subd. of S. W. ¼ (bet. canal and river)	33	38	12	6.54	654 00	Apr. 1, '93, purchase.	
56	Lot 2 in Subd. of S. W. ¼ (bet. canal and river)	33	38	12	3.38	350 00	Jan. 11, '93, purchase.	
55	Lot 3 in Subd. of S. W. ¼ (bet. canal and river)	33	38	12	3.35	350 00	Jan. 23, '93, purchase.	
54	Lot 4 in Subd. of S. W. ¼ (bet. canal and river)	33	38	12	3.24	350 00	Jan. 11, '93, purchase.	
53	Lot 5 in Subd. of S. W. ¼ (bet. canal and river)	33	38	12	3.11	340 00	Jan. 16, '93, condemnation	
52	Part of S. E. ¼ of N. E. ¼	32	38	12	2.32	250 00	Mar. 16, '93, purchase.	
50	Part of S. E. ¼	32	38	12				
48	Part of S. E. ¼	32	38	12				
46	Part of N. E. ¼ (N. of canal)	5	37	12	93.07	29,060 00	Dec. 13, '92, condemnation	$4.500 for buildings and easements.
45	Part of N. W. ¼ (bet. canal and river)	5	37	12				
44	Part of N. W. ¼	5	37	12	49.88	7,500 00	Nov. 15, '92, condemnation	
42	Part of N. E. ¼ (S. of R. R.)	6	37	12				
40	Part S. of R. R. of Lot 3, Carrington's Sub. of S. ½ (N. of river)	6	37	12	48.23	6,159 50	Oct. 26, '92, condemnation.	
36	Part S. of R. R. of Lots 4 and 5, Carrington's Sub. of S. ½ (N. of river)	6	37	12				
41	Lots 1 and 2, Carrington's Sub. of S.E. ¼ of.	6	37	12	29.99	6,180 00	Dec. 13, '92, condemnation.	Incl. E. 33 ft. of Tract No. 42.
38	Part of South fraction S. E. ¼	6	37	12	23.53	1,764 75	Dec. 2, '92, purchase.	
35	Part S. of R. R. of Lot 11, Carrington's Sub. of part of S. ½	6	37	12	13.74	1,319 00	Oct. 26, '92, condemnation.	
32	Lot 12, Carrington's Sub. of part of S. ½	6	37	12	14.80	1,025 00	Aug. 26, '92, purchase.	
31	Lot 1, Sub. of Lot 13, Carrington's Sub. of part of S. ½	6	37	12	16.77	3,307 00	Oct. 26, '92, condemnation.	Lot 1..$ 521 00; Lot 2.. 380 00; Lot 3.. 406 00; Lot 4.. 2,000 00 — $3,307 00 Include improvements.
	Lot 2, Sub. of Lot 13, Carrington's Sub. of part of S. ½	6	37	12				
	Lot 3, Sub. of Lot 13, Carrington's Sub. of part of S. ½	6	37	12				
	Lot 4, Sub. of Lot 13, Carrington's Sub. of part of S. ½	6	37	12				

EXHIBIT C—TABLE I.—*Continued.*

RIGHT OF WAY, FROM ORGANIZATION TO DECEMBER 31, 1898.—COOK COUNTY.

No. of Tract.	LOCATION.	Section	Town.	Range.	Acreage.	Price.	When and How Acquired.	Remarks.
30	N. W. ¼ (N. of canal)	7	37	12	17.37	$ 868 50	Oct. 26, '92, condemnation.	
29	N. W. ¼ (N. of canal)	7	37	12				
26	S. fraction of N. E. ¼ (N. of canal)	12	37	12	151.10	15,000 00	July 28, '92, purchase.	
25	S. fraction of N. W. ¼ (N. of canal)	12	37	12				
24	N. E. ¼ of S. W. ¼ (N. of canal)	12	37	11	14.23	710 50	Oct. 26, '92, condemnation.	
23a	S. W. ¼ of S. W. ¼ (N. of canal)	12	37	11	3.45	172 50	Oct. 26, '92, condemnation.	
23b	S. W. ¼ of S. W. ¼ (N. of canal)	12	37	11				
23c	S. W. ¼ of S. W. ¼ (N. of canal)	12	37	11				
23	N. W. ¼ of S. W. ¼ (bet. canal and river)	12	37	11	37.45	2,313 60	Nov. 19, '92, condemnation.	
21	Part of N. E. ¼ (N. of canal)	14	37	11	9.45	491 00	Oct. 10, '92, purchase.	
19	Part of S. ½ of S. W. ¼ (S. of river)	15	37	11	5.40	25 00	Sept. 21, '92, condemnation.	
17	Part of S. frac'l of S. ½	16	37	11	18.82	1,000 00	Sept. 21, '92, condemnation.	
16	Part of S. frac'l of S. ½	16	37	11				
18	Part of N. ½ of the N. E. ¼	21	37	11				Bought under same contract as tracts Nos. 1 and 4 in Will County and tract No. 2 in Du Page County. In all aggregating 329.54 acres. Contracts conferring dockage, etc., enter into agreement.
13	Part of Lots 1 and 2, Singer & Talcott's Sub	20	37	11				
12a	Part of North fraction of N. E. ¼	20	37	11	237.58	54,899 00	July 27, '92, purchase.	
12	South fraction of N. E. ¼	20	37	11				
8	S. E. ¼ of N. W. ¼	20	37	11				
5	Part of S. ½ of N. E. ¼	19	37	11				
15a	Part of the North fraction of N. W. ¼	21	37	11	97.75	9,768 00	Sept. 21, '92, condemnation.	
15	Part of the South fraction of N. W. ¼	21	37	11				
14a	Lot 25, subd. of Lot 3 in Singer & Talcott's Sub	20	37	11	1 lot.	1,000 00	Aug. 11, '96, purchase.	To be transferred to A., T. & S. F. R. R. per contract.
8b	Part of N. E. ¼ of N. W. ¼ and N. Westerly part of N. E. ¼	20	37	11	41.88	4,090 00	Sept. 8, '93, purchase.	
10	Part of S. W. ¼ (bet. R. R. and river)	20	37	11	254.18	19,511 25	Aug. 10, '92, purchase.	
9	North fraction of S. W. ¼	20	37	11				
7	Part of S. W. ¼ of N. W. ¼	20	37	11				
6	Part of S. E. frac'l ¼	19	37	11				
3	Part of W. ½ of the N. W. ¼	30	37	11				
2	Part of S. frac'l S. W. ¼	19	37	11				
4	Part of E. ½ of the N. W. ¼	30	37	11	0.50	25 00	Sept. 21, '92, condemnation.	Ownership not settled.
1	Part of North fraction of S. W. ¼	19	37	11	58.13	6,000 00	Aug. 16, '92, purchase.	

EXHIBIT C—TABLE II.

RIGHT OF WAY, FROM ORGANIZATION TO DECEMBER 31, 1898—CHICAGO RIVER.

No.	DESCRIPTION.	Area sq. ft.	Name of Owner.	When and How Acquired.	Price.	Remarks.
2	Part of Lots 5 and the S. E. ¼ of Lot 4 of Canal Trustees' Sub. of the W. ½ of Sec. 21, 39, 14, E. of the 3rd P. M., and so much of the S. E. ¼ as lies W. of the South Branch of the Chicago River.	1007	Wm. A. Havemeyer.	Nov. 12,'97, pur.	$2,014 00	
6 7	Part of Lot 4, Block 33, Canal Trustees' Sub. of W. ½ of Sec. 21, T. 39, N. R. 14, E. of 3rd P. M., and so much of the S. E. ¼ as lies W. of the South Branch of the Chicago River.	2951	Edward G. Halle.	Oct. 15, '97, pur.	2,500 00	
8	Part of Lots 9 and 10, Block 2, Edward McConnell's Sub. of part of N. frac. of N. W. ¼ Sec. 28, T. 39, N. R. 14, E. of the 3rd P. M.	15965	John McConnell, et al	Nov. 13,'97, pur.	10,000 00	
9	All that part of Lot 1, N. K. Fairbank's part of part of the North fraction of the N. W. ¼ of Section 28, T. 38 N., Range 14, East of the Third Principal Meridian, lying south of the line described as follows: Beginning at a point in the east line of Lot 1, 295 feet from the south line of Lumber street and extending westerly, intersecting the east line of Lot 2 of Morris & Johnson's Subdivision of eight acres in the North fraction of the N. W. ¼ of Section 28, T. 39 N., R. 14 East of the Third Principal Meridian, at a point 278.50 feet from the north line of said Lot 2, being the continued south line of Lumber street.					
9a	Also all that part of Lots 1 and 2, Morris & Johnson's Sub. of 8 acres in the North fraction of the N. W. ¼ of Sec. 28, T. 39 N., R. 14 East of the Third Principal Meridian, lying south of a line described as follows: Beginning at a point in the East line of Lot 1, N. K. Fairbank's part of part of N. W. ¼ of Section 28, T. 39 N., R. 14. East of the Third Principal Meridian, 295 feet from the South line of Lumber street; thence westerly intersecting the west line of Lot 2, Morris & Johnson's Sub., 278.50 feet from the north line of said lot (being the continued south line of Lumber street to its intersection with the north dock line of the South Branch of the Chicago River.	7395	Henry A. Dupont. Cook & Rathbone Co., lessees.	June 13,'98, con.	9,365 00	This amount includes $400 for temporary occupation during construction, and $1,750 for rental value of lease of property taken.
10	All that part of Lots 24 and 25 in Greene's South Branch Addition to Chicago, being the North fractional part of Section 29, T. 35 N., R. 14, East of the Third Principal Meridian, excepting the east 16.72 acres thereof lying southerly of a line described as follows: Beginning at a point on the east line of Throop street, 262 feet southerly of the N. W. corner of Lot 24; thence running northeasterly, intersecting the east line, continued, of Lot 25 at a point 304 feet southeasterly of the N. E. corner of said Lot 25 to its intersection with the west line of Throop's Canal.	9707.50	Jennie Lind Spry, et al.	Aug. 16,'98, pur.	9,707 50	

EXHIBIT C—TABLE II.—*Continued.*

RIGHT OF WAY, FROM ORGANIZATION TO DECEMBER 31, 1898—CHICAGO RIVER.

Tract No.	DESCRIPTION.	Area sq. ft.	Name of Owner.	When and How Acquired.	Price.	Remarks.
11	All that part of Lots 21, 22 and 23 in Greene's South Branch Addition to Chicago, being the North fractional part of Section 29, T. 39 N., R. 14, East of the Third Principal Meridian (excepting the east sixteen and seventy-two one-hundredths acres thereof), lying southerly of a line described as follows: Beginning at a point in the west line of Throop Street, 253 feet southerly of the northwest corner of Lot 23; thence southwesterly to a point in the west line of Lot 21, distant 219 feet from the northwest corner of said Lot 21, and in the east dock line of Sampson's Canal.	3857	Henrietta Ayers Boal.	July 29, pur.	3,857 00	
13	All that part of Lot 15 of the Re-subdivision of Lots 172 to 174, both inclusive, and Lots 11 to 19, both inclusive, together with that part of Lumber Street lying between Sampson's and Stetson's Canals and the streets between Lots 12 and 13; all in Greene's South Branch Addition to Chicago, lying southerly of a line described as follows: Beginning at a point in the west line of Loomis Street, said point being 83 feet south of the N. E. corner of Lot 12 of said Re-subdivision, thence northeasterly to the southeast corner of said Lot 15 at the northerly dock line of the South Branch of the Chicago River.					
14	Also all that part of Lots 11 and 12 of the Re-subdivision of Lots 172 to 174 (both inclusive) and Lots 11 and 19 (both inclusive) together with that part of Lumber Street lying between Sampson's and Stetson's lands and the street between Lots 12 and 13, all in Greene's South Branch Addition to Chicago lying southerly of a line described as follows: Beginning at a point in the west line of Loomis Street, said point being in the east line of and 83 feet south of the N. E. corner of said Lot 12, thence at an angle of 53 degrees with said west line of Loomis Street southwesterly to a point in the north dock line of South Branch of the Chicago River; said point in the dock line being the second angle south of the N. W. corner of said Lot 11.	6857	William G. Roelker.	June 13, cond'n.	3,000 00	
5	All that part of Lot 3, Block 33, of Canal Trustees' Subdivision of the west ½ of Section 21, T. 39 N., R. 14, East of the Third Principal Meridian, and as much of the S. E. ¼ as lies west of the South Branch of the Chicago River, lying northerly of the following described line, to-wit: Beginning at the dividing line between said Lot 3 and Lot 2 at its intersection with the south dock line of the South Branch of the Chicago River; thence southwesterly to a point in the dividing line between Lot 3 and Lot 4, distant 180 feet from the north line of Grove Street.	3363	Cosmopolitan Electric Company.	Aug. 24, cond'n.	6,000 00	

EXHIBIT C—TABLE III.

RIGHT OF WAY, FROM ORGANIZATION TO DECEMBER 31, 1898—JOLIET.

Track No.	DESCRIPTION.	Name of Owner.	When and How Acquired.	Price.	Remarks.
12	Lot 8, Block 8, Old Town of Joliet....	James O'Connor.	Sept. 14,'97, pur.	$ 1,200 00	Subject to taxes for 1897.
33	Lot 3, Block 17, Old Town of Joliet.....	Mary J. Palmer.	Oct. 8, '97, pur.	5,000 00	
37 and 38	Lot 4 and S. 38 ft. of Lot 3, and an undivided half interest in the 16 ft. next north of the S. 38 ft. of Lot 3, Block 24, Old Town of Joliet	R. M. Woods.	Oct. 26, '97, pur.	15,000 00	
48	Lot 3, Block 17, in West Joliet	Leander Leach.	Oct. 14, '97, pur.	4,500 00	
49	Lot 4, Block 17, in West Joliet	John Ferguson.	Sept. 11,'97, pur.	900 00	Subject taxes for 1897.
55	Lot 2, Block 4, School Section Addn. to Joliet.....	Margaret L. Duggan.	Sept. 21, '97 pur.	1,850 00	
57	Lot 6, Block 4, School Section Addn. to Joliet	Hanora Flood.	Nov. 4, '97, pur.	3,000 00	
59	S. 39 ft. of Lot 4, Block 18, School Section Addn. to Joliet..	F. W. Schroeder.	Nov. 4, '97, pur.	1,400 00	
120 and 121	Lots 15 and 16, Block 109, School Section Addn. to Joliet....	M. J. and G. P. Rugg	Dec. 3, '97, pur.	500 00	
38a	Leasehold interest in canal land between the canal and river bridges on the north side of Jefferson street in the City of Joliet, including paint shop and warehouse.....	Gianelli Bros.	Oct. 26, '97, pur.	250 00	Leasehold.
42a, 43, 44	Frame building and leasehold interest in canal land on the north side of Jefferson street, Joliet, between canal and river bridges, also basement of building on Lot 2, Daly, Grinton & Mack's Sub. of Block 17, West Joliet, also interest of Gustave Riemer, in Lots 4 and 5, Daly, Grinton & Mack's Sub., Block 17, West Joliet, including buildings..	G. Riemer.	Oct. 26, '97, pur.	1,300 00	Leasehold.
88	The E. 65 feet of Lot 7 of Levi Doty's Subdivision of part of the S. ½ of the S. ½ of Section 4, T. 35 N., R. 10.	Ellen M. Smith, et al.	Dec. 8, '98, pur.	1,150 00	
84	Lots 113, 114, 115, 116, 117, 118, 119, 120, 121, 122 in Edgewater being a subdivision of part of N. E. ¼ of the S. E. ¼, section 4, T. 35 N., R. 10.	P. R. Bannon.	Dec. 8, '98, pur.	1,900 00	

EXHIBIT C—TABLE III.

RIGHT OF WAY, FROM ORGANIZATION TO DECEMBER 31, 1898—JOLIET.

Tract No.	DESCRIPTION.	Name of Owner.	How and When Acquired.	Amount.	Remarks.
1 and pt. 2	N. ½ of Lot 1, Block 2, Old Joliet; also that part of the N. E. ¼ of Section 9 bounded on the west by the Desplaines River, on the North by Jackson street, on the east by a line drawn due north from the center of the alley running north and south in said Block 2, to the south line of Jackson street, and on the south by the W. ½ of said alley and the north line of Lot 1 in said Block 2.	Lina Barstow.	Jan. 4, '98, pur.	$ 4,425 00	
97	Lot 5, Block 79, School Section Addition to the City of Joliet.	Rosa McGovern.	Jan. 7, '98, pur.	1,500 00	
98	Lot 7, Block 79, School Section Addition to the City of Joliet	Peter E. McGovern.	Jan. 7, '98, pur.	7,000 00	
61	All that part of Lot 8, Block 18, School Section Addition to Joliet, beginning at a point on the north line of said lot, 115 feet west of the east line of said lot; thence running diagonally across said lot to a point 20 fiet east of the western boundary line of said lot, thence running east 71 feet along the southern boundary line of said lot, thence diagonally in a northeasterly direction across said lot to a point in the eastern boundary line thereof, 21 feet routh of the northern boundary line of said lot; thence along said eastern boundary line to the northern boundary line of said lot; thence along said northern boundary line west 115 feet to the point of beginning.	Edward and Mary Kelly.	Jan. 18, '98, pur.	1,100 00	
42b	Lot 3 in Daly, Grinton & Mack's Subdivision of Lot 1, Block 16, West Joliet, in the S. E. ¼ of Section 2.	M. Cushing.	Jan. 26, '98, pur.	10,000 00	
95 and 96	The S. ½ of Lot 1 in Block 79, also Lot 4 in Block 79, School Section Addition to Joliet.	Timothy Fallon.	Feb. 5, '98, pur.	2,000 00	
69, 75	Part Lot 7, Block 25, S. S. Addition to Joliet.				
76, 77, 78	Part Block 38, S. S. Addition to Joliet.				
79, 80, 81	Lot 1, Block 45, S. S. Addition to Joliet.				
82, 83, 84	Lot 2, Block 45, S. S. Addition to Joliet.				
85, 86, 100	Lot 3, Block 45, S. S. Addition to Joliet.				
101, 102, 103	Lot 4, Block 45, S. S. Addition to Joliet.				
104	Lots 1, 2 and 3, Block 57, S. S. Addition to Joliet.				Including leasehold, machinery, etc. Appealed by Sanitary District to Supreme Court and still pending.
	Lot 6, Block 57, S. S. Addition to Joliet.	W. J. Adam, et al.	Jan. 12, '98, con.	77,100 00	
	Lot 7, Block 57, S. S. Addition to Joliet.				
	Lot 1, Block 62, S. S. Addition to Joliet.				
	Lot 4, Block 62, S. S. Addition to Joliet.				
	Lot 4, Block 57, S. S. Addition to Joliet.				
	Lot 5, Block 57, S. S. Addition to Joliet.				
	Lot 2, Block 62, S. S. Addition to Joliet.				
	Lot 3, Block 62, S. S. Addition to Joliet.				
	Lot 6, Block 62, S. S. Addition to Joliet.				

36, 37 45, 46 [illegible]	Lot 2 and the north 28 feet of Lot 3, Block 94, Old Town of Joliet and Lots 6 and 7 in Daly, Grinton & Mack's Subdivi-[illegible] in Block 17 and Lot 5 in said Block 17 in West Joliet, also Lots 3 and 4 in Block 4, School Section Addition to Joliet.	John E. Bush.	Feb. 12,'98, pur.	$18,000 00
99	Lot 8, Block 79, School Section Addition to Joliet.	Mary and Owen Brice	Feb. 8,'98, pur.	2,500 00
105 to 109 incl.	Lots 13, 14, 15, 16 and 17 in Goodspeed's Subdivision of Block 91, School Section Addition to Joliet.	Chas. F. Goodspeed, et al.	Feb. 12,'98, pur.	1,750 00
122	Lot 17 in Murphy & Bennitt's Subdivision of Block 109, School Section Addition to Joliet.	John and Mary Scott	Feb. 18,'98, pur.	550 00
9	Lot 8, Block 3, Old Town of Joliet.	Bridget McNiff.	Feb. 12,'98, pur.	1,200 00
42a, 43, 44	Lots 2, 4 and 5 of Daly, Grinton & Mack's Subdivision of Lot 1, Block 17, West Joliet.	Eugene Daly.	Feb. 17,'98, pur.	10,500 00
87 to 94 and 150, 151, 152	Lots 5, 7 and 8 in Block 62, School Section Addition to Joliet, also Lots 1, 6, 7, 8 and 13, Block 74, School Section Addition to Joliet, also Lots 5, 9 and 12, Block 74, School Section Addition to Joliet.	William J. Adam.	Feb. 9,'98, pur.	7,500 00
112, 113 116, 117	Lots 11, 12, 13 and 14 in H. S. Bond's Subdivision of Block 96 in School Section Addition to Joliet.	John Hebert.	Feb. 19,'98, pur.	950 00
38a	Leasehold of the island between the canal and river, north of Jefferson street in the City of Joliet.	John Ryan.	Feb. 15,'98, pur.	400 00
58, 62 63, 65	Lot 1 and the north 3 feet of Lot 4, Block 18, also Lots 2, 3 and 7 in said Block 18, and in School Section Addition to Joliet.	Jacob Adler.	Feb. 21,'98, pur.	4,500 00
39, 40, 41 41b, 47	Lots 1 and 2, Block 25, Old Town of Joliet, also that part of Block 25 which lies south of Lot 2 in said Block 25 and north of a line 66 feet north of the north line of Washington street; also Lot 2, Block 17, West Joliet and an island in the Desplaines River south of Jefferson street.	F. S. Robinson. T. W. Robinson. American Stone Co.	Feb. 21,'98, con.	36,000 00
41d	The N. 20 5-12 feet of Lot 1, Block 4, School Section Addition to Joliet, and that part of Lot 6 of M. E. Bannon's Subdivision of the S. W. corner of the east fraction of the S. E. ¼ of Section 9 and in the N. W. corner of the east fraction of the N. E. ¼ of Section 16, T. 35 N., R. 10, East of the Third Principal Meridian, occupied by a dwelling house on the south half of said Lot 6 and a strip of land 3 feet wide along the north side of said dwelling house situated in the City of Joliet.	Margaret L. Duggan.	Feb. 25,'98, pur.	450 00
58a	The S. 24 feet of the N. 27 feet of Lot 4, Block 18, School Section Addition to Joliet.	Julia Ann Barber.	Feb. 25,'98, pur.	2,000 00
Pt. 13	The N. ½ of Lot 7, Block 8, Old Town of Joliet.	Albert L. Brandon.	Feb. 28,'98, pur.	1,100 00
54	All that part of Lot 1, in Block 4, School Section Addition to Joliet, lying south of the N. 20 5-12 feet thereof in the N. E. ¼ of Section 16, T. 35 N., R. 10, East of the Third Principal Meridian.	People's Loan and Homestead Association, Joliet, Ill.	Feb. 28,'98, pur.	1,350 00

EXHIBIT C—TABLE III.—*Continued.*

RIGHT OF WAY, FROM ORGANIZATION TO DECEMBER 31, 1898—JOLIET.

Track No.	DESCRIPTION.	Name of Owner.	How and When Acquired.	Amount.
N. ½ 4	The N. ½ of Lot 3, Block 2, Old Town of Joliet.	Frederick W. Woodruff. Nellie D. Woodruff.	Feb. 25,'98, pur.	$ 620 62
2 and 3	The S. ½ of Lot 1 and all of Lot 2 in Block 2 in Old Town of Joliet.	The Economy Light Power Co.	Feb. 25,'98, pur.	1,861 88
pt. of 60	The W. 60 feet of the E. 110 feet of Lot 5, Block 18, School Section Addition to Joliet.	James Lonergan.	Feb. 26,'98, pur.	175 00
118, 119	Lots 20 and 21 in H. S. Bond's Subdivision of Block 96, School Section Addition to Joliet.	Ann Haley.	Mar. 14,'98, pur.	500 00
127	All that part of Block 132, School Section Addition to Joliet lying west of a line running from a point on the north line of said block which is distant 520 feet from the west line of River street, southwesterly to a point in the north line of South street which is distant 600 feet from the west line of said River street and situated south of the N. 50 feet of said Block.	Ann Haley. Annie Gaynor. John Gaynor.	Mar. 15,'98, pur.	700 00
S. ½ 4	The S. ½ of Lot 3, Block 2, Old Town of Joliet.	Howard Bliss Francis Ethan E. Wetherbe.	Mar. 15,'98, pur.	500 00
18	The N. ½ of Lot 4, Block 8, in the Old Town of Joliet.	Mary Brannon. Ellen J. Feddyment.	Mar. 21,'98, pur.	500 00
13a, 13b 14, 14a 15, 16 18a	The W. 35 feet of the N. ½ and W. 16 feet of the S. ½ of Lot 7, also the W. 30 feet of Lot 6, also the W. 30 feet of Lot 5, also as much of Lots 1 and 2 and the S. ½ of Lot 4 as lies east of the east wall of the Illinois and Michigan Canal, as the same is now located, all in Block 8, in the Old Town of Joliet.	Francis W. Plant.	Feb. 21,'98, pur.	3,250 00
42	Lot 1 of Daly, Grinton & Mack's Subdivision of Lot 1, Block 17, West Joliet.	John E. Bush.	Mar. 21, '98, con.	19,000 00
124, 125 126 and 127a	Block 115, that part of Block 125 west of a point on the south line of Duncan street, 240 feet west of the west line of River street, thence southerly to a point in the south line of said block, 520 feet west of the west line of River street, also all that part of the N. 50 feet of Block 132, lying west of a line drawn from a point in the north line of said Block 132, which is 520 feet from the west line of River street to a point in the north line of South street, 600 feet from the west line of River street, all in the School Section Addition to Joliet; also Block 116, School Section Addition to Joliet.	Thomas Bossom.	Ap'l 7, '98, pur.	3,000 00
76	Lot 5, Block 4 in School Section Addition to Joliet.	City of Joliet.	Ap'l 13,'98, pur.	3,000 00

[illegible]	The E. ½ of Lot 1, Block 16 in School Section Addition to Joliet.	Chas. A. Noble.	July 26, '98, pur.	$ 150 00	Quit claim.
[illegible] and 10	All that part of the S. E. ¼ of Section 9, T. 35 N., R. 10, East of the Third Principal Meridian, lying west of Lots 2 and 3 in Block 2, Old Town of Joliet and east of the Desplaines River and north of the north line of Reed Street in the City of Joliet and south of the east and west alley in said Block 2, which lies east of the center line of Joliet Street produced.				
	That part of Lot 6, Block 3, Old Town of Joliet which lies east of the east wall of the Illinois and Michigan Canal.	Patrick R. Bannon.	Ap'l 12, '98, con.	6,000 00	
	That part of Lot 5, Block 3, Old Town of Joliet, which lies east of the east wall of the Illinois and Michigan Canal.				
	Lot 4, Block 3, Old Town of Joliet.				
	That part of Lot 1, Block 3, Old Town of Joliet which lies east of the east wall of the Illinois and Michigan Canal.				
17, 19, 20 22, 25, 26 34, 35	That part of Lot 3, Block 8, Old Town of Joliet, which lies east of the east wall of the Illinois and Michigan Canal.				
	Lot 1, Block 10, Old Town of Joliet.				
	Lot 2, Block 10, Old Town of Joliet.				
	Lots 1, 2 and 3 of Adams' Estate Subdivision of Lots 3 and 4, Block 10, Old Town of Joliet. That part of Lot 3, Block 9, Old Town of Joliet, which lies east of the east wall of the Illinois and Michigan Canal. That part of Lot 4, Block 9, Old Town of Joliet, which lies east of the east wall of the Illinois and Michigan Canal. That part of Lot 4, Block 17, Old Town of Joliet, which lies east of the east wall of the Illinois and Michigan Canal. That part of Lot 1, Block 24, Old Town of Joliet, which lies east of the east wall of the Illinois and Michigan Canal.	William J. Adam, et al.	Ap'l 12, '98, con.	21,135 00	
27, 28, 29	That part of Lot 1, Block 16, Old Town of Joliet, which lies east of the east wall of the Illinois and Michigan Canal. That part of Lot 2, Block 16, Old Town of Joliet, which lies east of the east wall of the Illinois and Michigan Canal. That part of Lot 3, Block 16, Old Town of Joliet, which lies east of the east wall of the Illinois and Michigan Canal.	Truman A. Mason. Fred C. Wilcox. William G. Wilcox.	Ap'l 12, '98, con.	16,060 00	
30	That part of Lot 4, Block 16, Old Town of Joliet, which lies east of the east wall of the Illinois and Michigan Canal.	Heirs-at-law of James Paul.	Ap'l 12, '98, con.	4,400 00	
31 and 32	That part of Lot 1, Block 17, Old Town of Joliet, which lies east of the east wall of the Illinois and Michigan Canal. That part of Lot, Block 17, Old Town of Joliet, which lies east of the east wall of the Illinois and Michigan Canal.	John P. King. C. W. Brown.	Ap'l 12, '98, con.	9,075 00	
23	That part of Lot 1, Block 9, Old Town of Joliet, which lies east of the east wall of the Illinois and Michigan Canal.	Elizabeth Holmes, et al.	Ap'l 12, '98, con.	25 00	
24	That part of Lot 2, Block 9, Old Town of Joliet, which lies east of the east wall of the Illinois and Michigan Canal.	Florence Holbrook, et al.	Ap'l 12, '98, con.	250 00	
53	Lot 7, Block 4, School Section Addition to Joliet.	Royal E. Barber.	Ap'l 12, '98, con.	160 00	

EXHIBIT C—TABLE III.—*Continued.*

RIGHT OF WAY, FROM ORGANIZATION TO DECEMBER 31, 1898—JOLIET.

Tract No.	DESCRIPTION.	Name of Owner.	How and When Acquired.	Amount.	Remarks.
123	Lot 17, Murphy & Bennitt's Subdivision of Block 109.	Frank Murphy.	Ap'l 12,'98, con.	$ 800 00	
66	West ½, Lot 2, Block 25, School Section Addition to Joliet.	Robert Kimball et al.	Ap'l 12,'98, con.	30 00	
71, 72 and 73a	Lot 1, Block 26, School Section Addition to Joliet. Lot 4, Block 26, School Section Addition to Joliet. W. ½ Lot 5, Block 26, School Section Addition to Joliet.	Giles Spring et al.	Ap'l 12,'98, con.	35 00	
110, 111 114, 115	Lot 3, H. S. Bond's Subdivision of Block 96, School Section Addition to Joliet. Lot 6, H. S. Bond's Subdivision of Block 96, School Section Addition to Joliet. Lot 4, H. S. Bond's Subdivision of Block 96, School Section Addition to Joliet. Lot 5, H. S. Bond's Subdivision of Block 96, School Section Addition to Joliet.	Millie Alexander et al.	Ap'l 12,'98, con.	800 00	
128 to 148 inclusive.	Lot 2, Block 2, South Park. Lot 3, Block 2, South Park. Lot 6, Block 2, South Park. Lot 7, Block 2, South Park. Lot 2, Block 4, South Park. Lot 1, Block 3, South Park. Lot 2, Block 3, South Park. Lot 3, Block 3, South Park. Lot 4, Block 3, South Park. Lot 5, Block 3, South Park. Lot 6, Block 3, South Park. Lot 31, Block 2, Addition to South Park. Lot 31, Block 2, Addition to South Park. Lot 29, Block 2, Addition to South Park. Lot 28, Block 2, Addition to South Park. Lot 1, Block 3, Addition to South Park. Lot 2, Block 3, Addition to South Park. Lot 3, Block 3, Addition to South Park. Lot 4, Block 3, Addition to South Park. Lot 5, Block 3, Addition to South Park. Lot 6, Block 3, Addition to South Park.	Michael Calmer, Trustee.	Ap'l 12,'98, con.	2,100 00	
41 and 41a	Lots 4, 5 and 6 of M. E. Bannon's Subdivision in the S. W corner of the east fraction of the S. E. ¼ of Section 9, T. 35 N., R. 10, and in the N. W. corner of the east fraction of the N. E. ¼.	Michael E. Bannon.	Ap'l 12,'98, con.	4,800 00	
88	The east 65 feet of Lot 7 of Levi Doty's Subdivision of part of the S ½ of the S. ½ of Sec. 4, T. 35 N., R. 10.	Ellen M. Smith et al.	Dec. 8, '98, pur.	1,150 00	
84	Lots 113 to 122 incl. in Edgewater, being a subdivision of part of N. E. ¼ of the S. E. ¼, Sec. 4, T. 35 N., R. 10.	Patrick R. Bannon.	Dec. 8, '98, pur.	1,900 00	

EXHIBIT C—TABLE IV.

RIGHT OF WAY, FROM ORGANIZATION TO DECEMBER 31, 1898.—WILL COUNTY.

No. of Tract.	LOCATION.	Section.	Town.	Range.	Acreage.	Price.	When and How Acquired.	Remarks.
1	Part of the S. ½ of S. E. ¼	24	37	10	74.16	$17,136 89	July 27, '92, purchase.	Bought under same contract as tracts, 18, 13, 12, 12a, 8 and 5, Cook County, and tract 2, Du Page County.
4	S. frac'l N. E. ¼ (N. of R. R.)	25	37	10				
3	N. frac'l N. E. ¼	25	37	10	56.20	4,218 75	June 24, '92, condemnation	
5	S. frac'l N.W. ¼ (N. of R. R. right of way)	25	37	10	35.58	3,615 75	June 24, '92, condemnation	
5a	Part of the N. frac'l N. W. ¼	25	37	10	78.14	5,293 50	June 24, '92, condemnation	
6	S. W. ¼ (N. of R. R. right of way)	25	37	10	17.96	2,002 50	June 24, '92, condemnation	
7	S. E. ¼ of N. E. ¼	26	37	10	178.27	11,190 85	June 24, '92, condemnation	
7a	S. E. ¼ of N. E. ¼	26	37	10				
8	S. E. ¼ (N. of R. R. right of way)	26	37	10				
8	S. E. ¼ (N. of R. R. right of way)	26	37	10				
9	Part of the S. E. ¼ of S. W. ¼	26	37	10	35.26	876 00	June 27, '92, purchase.	
9a	Part of the S. E. ¼ of S. W. ¼	26	37	10				
10	N. E. ¼ (N. of R. R. right of way)	35	37	10	20.13	2,403 70	June 24, '92, condemnation	
11	N.W. ¼ (bet. R.R. right of way and river)	35	37	10	116.14	5,236 40	June 24, '92, condemnation	
11a	N. frac'l N. W. ¼	35	37	10	41.25	5,132 40	June 24, '92, condemnation	
12	Part of the S. W. ¼ (bet. R. R. right of way and river)	35	37	10	104.17	7,502 95	June 24, '92, condemnation	
12a	S. W. ¼ (N. and W. of center of river)	35	37	10	8.22	112 45	June 24, '92, condemnation	
2b	Part of the S. ½ of S. E. ¼ (E. of river)	34	37	10	74.75	2,500 00	Jan. 21, '93, purchase.	
19	S. E. ¼ (E. of river)	3	36	10				
19a	S. ½ of N. E. ¼ (E. of river)	3	36	10				
13	Part of the S. W. ¼ (W. of R. R.)	35	37	10	11.00	6,000 00	May 18, '93, purchase.	
15	Part of the N. W. ¼ (W. of R. R.)	2	36	10	102.00	10,860 00	Aug. 26, '92, purchase.	
16b	Part of the N. ¼ of N. W. ¼ (W. of R. R.)	2	37	10	0.80	120 00	Mar. 11, '93, purchase.	
17	Part of the N. ¼ of N. W. ¼ (W. of R. R.)	2	37	10	1.07	750 00	June 23, '93, condemnation	
16	Part of the N. ½ of N. W. ¼ (W. of R. R.)	2	36	10	96.43	10,500 00	Sept. 22, '92, purchase.	
18	Part of the S. ½ N. W. ¼ (W. of R. R.)	2	36	10				
20	S. W. ¼ (W. of R. R.)	2	36	10				
21a and 21	N. E. ¼ (E. of river)	10	36	10	443.49	57,043 60	Sept. 27, '92, purchase.	$15,000.00 of this total was paid for "The Mound," a great gravel bank.
22	N. W. ¼ (W. of R. R.)	11	36	10				
24a and 24	S. E. ¼ (E. of river)	10	36	10				
25	S. W. ¼ (W. of R. R.)	11	36	10				
28	N. E. ¼ (E. of river)	15	36	10				
31	S. E. ¼ (E. of river)	15	36	10				
29	Part of the N. W. ¼ (W. of R. R.)	14	36	10				
31a	S. E. ¼ (a part E. of river)	15	36	10	3.57	357 00	Mar. 21, '94, purchase.	
32	Part of the W. ½ of S. W. ¼	14	36	10	50.43	5,200 00	May 29, '94, condemnation	
33	Lot 5 in the Sub. of the N. E. ¼, etc.	22	36	10	59.36	21,309 50	Jan. 21, '95, condemnation	
33a	Lot 6 in the Sub. of the N. E. ¼, etc.	22	36	10				

EXHIBIT C—TABLE IV.—*Continued.*

RIGHT OF WAY, FROM ORGANIZATION TO DECEMBER 31, 1898.—WILL COUNTY.

Tract No.	DESCRIPTION.	Section	Town.	Range.	Acreage.	Price.	When and How Acquired.	Remarks.
34	Lot 4 in the Sub. of the N. E. ¼, etc.....	22	36	10	13.78	$ 1,719 60	May 29, '94, condemnation	
35	Lots 1, 2 and 3, in the Sub. of the N. E. ¼, etc.....	22	36	10	24.01	3,600 00	May 29, '94, condemnation	
Part of 36	Block 139, Lockport, N. W. ¼.....	23	36	10	5.05	800 00	Oct. 13, '94, purchase.	
38	Lot 5, in the Sub. of N. W. ¼, etc.....	22	36	10	14.79	5,176 50	Jan. 21, '94, condemnation	
39	The W. 507.7 ft. of the S. ½ of N. E. ¼...	22	36	10	9.63	3,370 50	Jan. 21, '94, condemnation	
39a	Part of Lot 7, in Sub. of N. E. ¼, etc.....	22	36	10				
40	Part of E. ½ of N. E. ¼ (S. and W. of river).....	22	36	10				
41	Part of N. W. ¼ (S. and W. of river).....	23	36	10				
41a	Part of N. ½ of S. E. ¼.....	22	36	10	233.18	29,125 00	May 15, '94, purchase.	
56	N. W. ¼ (bet. R. R. and river).....	27	36	10				
57	N. E. ¼ (W. of river).....	27	36	10				
58	N. E. ¼ (bet. R. R. and river).....	27	36	10				
63	S. W. ¼ (bet. R. R. and river).....	27	36	10				
42	Lot 1 in Sub., etc., S. W. ¼.....	22	36	10	37.84	7,568 00	Jan. 21, '94, condemnation	
43	The W. 507.7 ft. of N. ½ of S. E. ¼.....	22	36	10	15.41	3,082 00	Jan. 21, '94, condemnation	
48	Part of Lot 4 in Sub. of S. W. ¼, etc.....	22	36	10	55.70	11,140 00	Jan. 21, '94, condemnation	
49	Part of S. W. ¼.....	22	36	10	5.775	1,156 00	Apr. 10, '95, purchase.	
50	Part of S. E. ¼.....	22	36	10				
49a	Part of S. W. ¼.....	22	36	10	87.54	175,000 00	Nov. 11, '97, purchase.	
50a	Part of S. E. ¼ Sec. 22, 36, 10 and part of S. W. ¼.....	23	36	10				
54	All that part E. of center line of Chicago and Joliet Rd. in N. E. ¼.....	28	36	10	134.83	14,500 00	Feb. 10, '97, condemnation	
55	Part of the N. W. ¼.....	27	36	10				
56a	Part of the N. W. ¼.....	27	36	10				
59	The N. 827.26 ft. of S. E. ¼ (E. of road)..	28	36	10	35.86	4,366 25	July 2, '94, purchase.	
61	The N. 827.26 ft. of S. W. ¼ (W. of river)	27	36	10				
60a	Part of the S. E. ¼.....	28	36	10	37.61	4,125 00	Aug. 3, 94, purchase.	
62a	W. fraction S. W. ¼.....	27	36	10				
68	Part of the N. W. ¼ (lying W. of Desplaines River).....	34	36	10				
72	Part of the S. W. ¼ (lying W. of Desplaines River and N. of R. of W. of E., J. & E. R. R.....	34	36	10	40.79	8,400 00	Apr. 17, '95, purchase.	
75	Part of the S. W. ¼.....	34	36	10				
69	Part of the N. W. ¼ (E. of Desplaines R.)	34	36	10	39.53	7,906 00	Apr. 15, '95, purchase.	
76	Part of the S. W. ¼.....	34	36	10	30.98	6,196 00	Apr. 15, '95, purchase.	
83	Part of the N. W. ¼.....	3	35	10	26.30	2,600 00	Dec. 4, '95, purchase.	
83a	Part of the N. W. ¼.....	3	35	10				

44	Lots 1 to 14 incl., in Block 5 in Rosedale, in S. E. ¼ Lots 1, 4, 5 and 8 in Block 8 in Rosedale, in S. E. ¼ Lots 30 to 33 incl., in Block 6 in Rosedale, in S. E. ¼ Lots 1 to 20 incl., in Block 4 in Rosedale, in S. E. ¼ Lots 1 to 29 incl., in Block 6 in Rosedale, in S. E. ¼ Lots 1 to 54 incl., in Block 7 in Rosedale, in S. E. ¼ Lots 1 to 20 incl., in Block 3 in Rosedale, in S. E. ¼ Lots 2, 3, 6, 7, 9 to 34 incl., in Block 8 in Rosedale, in S. E. ¼	22	36	10		$ 4,819 00	Aug. 3, '98, condemnation.	Appealed by Defendant Schuster and still pending. This includes buildings and leaseholds.

EXHIBIT C—TABLE V.

RIGHT OF WAY THROUGH JOLIET ACQUIRED FROM ILLINOIS AND MICHIGAN COMMISSIONERS SINCE ORGANIZATION.

Tract No.	DESCRIPTION.	Area. Sq. ft.	Date.	Amount.	Remarks.
	All that part of Block 1, North Joliet, which lies within the boundary line of the proposed 300-foot wide channel, the center line of which is described as follows:				
1a	Beginning at the point of intersection of the east line of Section 4, T. 35 N., R. 10. East of the Third Principal Meridian, and a line parallel to the westerly reserve line of the Illinois and Michigan Canal, said parallel line being 475 feet distant from said westerly reserve line measured at right angles; running thence southwesterly along said parallel line for a distance of 816.29 feet to a point of curve; running thence on a curve to the left, having a radius of 1449 feet for a distance of 1002.13 feet to a point of reverse curve; running thence on a curve to the right, said curve having a radius of 628 feet for a distance of 433.60 feet to a point of tangent.				
5a	Also that part of the S. E. ¼ of Section 9, T. 35 N., R. 10, East of the Third Principal Meridian, lying west of the center line of Joliet street produced, east of the Desplaines River and north of the north line of Reed street in the City of Joliet.	25199	Aug. 24, 1898.	$7,630 00	These tracts were acquired under terms of agreement with Canal Commissioners of date of March 16, 1897, and payment for same was made August 24th, 1898.
11	Also that part of Lot 2, Block 3. Old Town of Joliet, lying east of the east wall of the Illinois and Michigan Canal.				
38a	Also a certain tract of land in the S. E. ¼ of Section 9, T. 35 N., R. 10, East of the Third Principal Meridian, north of Jefferson street, west of the Desplaines River and east of a line 56 feet distant from and parallel to the center line of the Illinois and Michigan Conal, said center line running through a point in the south line of Block 16, West Joliet produced, 170 feet distant from the S. W. corner of said block and forming an angle of 95 degrees and fifty minutes with said south line measured from north to west.				
11a	All that part of Blocks 3 and 8 and all that part of Benton street, Desplaines street and Webster street, Old Town of Joliet, lying west of the east wall of the Illinois and Michigan Canal.				

99a	All that part of the N. W. ¼ of Section 3, T. 35 N., R. 10, East of the Third Principal Meridian. Beginning at the point of intersection of the east margin of the Desplaines River with the westerly 90 feet reserve line of the Illinois and Michigan Canal; thence on a normal line to the center thread of the Desplaines River; thence southerly and southwesterly along said center thread to its intersection with the westerly reserve line of the Illinois and Michigan Canal; thence northeasterly along said westerly reserve line to the place of beginning.	Containing 5.22 acres.	Dec. 14.	$32,000 00	These tracts were acquired under terms of decree entered in Will County Circuit Court.
75b	All that part of the N. W. ¼ of Section 3, T. 35 N., R. 10, East of the Third Principal Meridian, described as follows: Beginning at the point of confluence of the center thread of the West Channel of the Desplaines River with the center thread of the East Channel of said river; thence east on a normal line to the west 90 feet reserve line of the Illinois and Michigan Canal; thence northeasterly along said west reserve line to its intersection with the west right of way line of the Chicago, Santa Fe & California Railway; thence northwesterly along said west right of way line to the north line of the N. W. ¼ of said Section 3; thence west along said north line to its intersection with the center thread of the Desplaines River; thence southerly and southwesterly along said center thread to the point of beginning.				$12,000 of this amount was paid to the Economy Light and Power Company for damages by loss of water power during construction.

EXHIBIT C—TABLE VI.

RIGHT OF WAY, FROM ORGANIZATION TO DECEMBER 31, 1898.—DU PAGE COUNTY.

No. of Tract.	LOCATION.	Section	Town.	Range.	Acreage.	Price.	When and How Acquired.	Remarks.
1	That part of S. E. ¼ (S. of center of riv.)	16	37	11				
6	That part of N. W. ¼ (S. of river)	15	37	11				
7	That part of N. E. (S. of guard bank)	15	37	11	87.59	$ 7,000 00	Aug. 27, '93, condemnation.	
7a	That part of N. E. ¼ (bet. guard bank and center thread of river	15	37	11				
1a	Part of S. ½ (N. of river)	16	37	11	70.18	5,965 30	Apr. 22, '93, purchase.	
*2	Part of S. frac'l of S. W. frac'l ¼	15	37	11	17.80	4,323 22	July 27, '92, purchase.	Bought under same contracts as tracts 18, etc., in Cook County and tracts 1 and 4 in Will County.
3	Part of N. frac'l of S. W. ¼	15	37	11	32.22	2,094 30	Jan. 16, '93, purchase.	
3a	Part of Lot 4, Comm'rs partition of Island frac'l of S. W. ¼	15	37	11	28.76	7,924 39	June 26, '95, condemnation.	
3b	Lot 4, Comm'rs partition of Island frac'l of S. W. ¼	15	37	11				
3c	Lot 5, Comm'rs partition of Island frac'l of S. W. ¼	15	37	11				
3d	Lot 6, Comm'rs partition of Island frac'l of S. W. ¼	15	37	11	44.46	10,000 00	Sept. 18, '95, condemnation.	
3e	That part S. of Lot 6 of Comm'rs partition and N. of cent. of old channel of river	15	37	11				
3f	That part E. of Lots 5 and 6 of Comm'rs partition and W. of Bracken bank	15	37	11				
4	W. 157.09 ft. of part of S. E. ¼, lying N. of northern boundary line of I. & M. canal	15	37	11	5.17	1,554 02	June 26, '95, condemnation.	
*5	Part of that part of S. E. ¼ lying N. of northern reserve line of I. & M. canal, except the W. 157.08 ft. thereof	15	37	11	32.00	9,866 05	June 26, '95, condemnation.	
8	Part of the W. 701.58 ft. of N. W. frac'l ¼	14	31	11	32.54	10,873 92	June 26, '95, condemnation.	
*10	Part of the E. 623.4 ft. of W. ½ of N. W. frac'l ¼	14	37	11	31.10	8,478 20	June 26, '95, condemnation.	Nagle leasehold interest in tracts Nos. 2, 5 and 10, $310.00 additional.
11	E. ½ of N. W. ¼ (N. of river)	14	37	11	44.32	4,227 60	Aug. 27, '92, condemnation.	
12	That part of N. E. ¼ (bet. Bracken bank and county line)	14	37	11	3.90	79 00	Aug. 27, '92, condemnation.	Owner unknown.
13	Part of E. ½ of S. W. ¼ (N. of river)	11	37	11	9.93	711 75	Feb. 16, '93, purchase.	
14	E. ½ of S. W. ¼ (S. of river)	11	37	11	8.88	178 60	Aug. 27, '92, condemnation.	
15	W. ½ of S. E. ¼ (S. and W. of river)	11	37	11	4.78	96 60	Aug. 27, '92, condemnation.	
16	Part of W. ½ of S. E. ¼ (N. of river)	11	37	11	11.61	870 75	Feb. 16, '93, purchase.	

[illegible]	[illegible] of W. [illegible] acres of E. 10 acres of W. ½ [illegible]	11	37	11	4.36	252 00	Feb. 21, '93, purchase.
18	The E. 5 acres of W. ½ of S. E. ¼.....	11	37	11	5.75	456 00	April 5, '93, purchase.
19	Part of N. fraction of E. ½ of S. E. ¼....	11	37	11	18.19	1,364 25	Feb. 24, '93, purchase.
21	Part S. of R. R. of Lot 6 in Sub. of S. ½ of	1	37	11	4.22	385 00	Feb. 25, '94, purchase.
22	Part S. of R. R. of Lot 4 in Sub. of S. ½ of	1	37	11	10.24	750 00	Feb. 17, '93, purchase.
23	W. ½ S. of R. R. of Lot 3 in Sub. of S. ½ of	1	37	11	5.15	375 00	Sept. 20, '93, purchase.
24	E. ½ S. of R. R. of Lot 3 in Sub. of S. ½ of	1	37	11	5.20	375 00	Dec. 31, '92, purchase.
25	Lot 2 S. of R. R. in Sub. of S. ½ of.....	1	37	11	2.59	187 50	Oct. 7, '92, purchase.
26	Lot 1 S. of R. R. in Sub. of S. ½ of.....	1	37	11	5.26	475 00	Feb. 13, '93, purchase.

In conclusion, I respectfully desire to state the administration of this department is charged with the execution of the orders of the Board and its Committees, the preparation and execution of all contracts to which the District is a party, and the care and supervision of all legal matters arising in the different departments. The services of this department for the year 1899 will be engaged with such administrative matters as above indicated, together with the preparation of opinions and briefs, the trial of cases now pending in the courts, and the consideration of claims against the District, and such new matters as may arise, and the general routine work of the department.

Respectfully submitted,

(Signed) CHARLES C. GILBERT
Attorney.

REPORT AND ORDER IN REFERENCE TO PAYMENT OF VOUCHERS IN FAVOR OF CONTRACTORS FOR SECTION "O."

The Clerk presented a report setting forth that Messrs. McMahon & Montgomery Co. et al. (contractors for Section "O") have refused to accept certain vouchers heretofore ordered paid and recommending the adoption of the order accompanying the report, the said order directing that said warrants be paid upon the execution of a receipt, contract and bond in the form attached.

Mr. Wenter, seconded by Mr. Braden, moved that the report be received and the accompanying order passed.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Jones, Kelly, Smyth and Wenter—seven. Nays—none. Excused and not voting, Mr. Eckhart—one.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, March 8, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I would respectfully report that the McMahon & Montgomery Company et al. refuse to accept the vouchers which your Honorable Board directed should be paid to them and sign the receipts prepared.

Knowing what is the manifest intention of the Board I would respectfully suggest the adoption of the following order to carry out that intention.

Very respectfully,

(Signed) JOSEPH F. HAAS,
Clerk."

(Four enclosures.)

The following is

THE ORDER.

"*Ordered*, That the warrants to be paid the McMahon & Montgomery Company et al., which were heretofore authorized, be delivered to them upon the execution of a receipt therefor in the form hereto attached and upon the execution of a contract and a bond in the forms hereto attached, and that the execution of said contract and bond shall be accepted as and deemed a full and complete performance of the contract as to Section "O," made and entered into by McMahon & Montgomery Company et al. and dated the second day of May, 1894."

AMENDMENT OF RULES 13 AND 14.

Under the head of unfinished business the Clerk presented a report from the Committee on Rules in reference to the amendment of Rules 13 and 14 of the Rules and Regulations presented and laid over at the meeting held March 1, 1899 (page 5504 of the proceedings.)

Mr. Jones, seconded by Mr. Smyth, moved that the report be adopted and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—nine. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, March 1, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Your Committee on Rules, having had under consideration Rules 13 and 14 of the Rules and Regulations of the Board of Trustees of the Sanitary District of Chicago, and having duly considered the duties of the Clerical and Treasury Departments with reference to said rules, respectfully recommend that said Rules 13 and 14

amended by your Honorable Body so as to read as follows:

13. The Committee on Finance shall examine and approve all bills and vouchers before they are acted upon by the Trustees prior to each regular meeting of the Board. If any bills or vouchers are not approved by the Committee, the reasons therefor shall be reported to the Board.

14. The Board of Trustees, may, however, in its discretion, order the payment of any bills or vouchers without reference of the same to the Committee on Finance; but in such cases it shall be the duty of the Clerk to properly endorse on the bill or voucher the authority for its payment.

Respectfully submitted;

(Signed) WM. BOLDENWECK,
Chairman.
ALEX. J. JONES,
JOS. C. BRADEN,
THOMAS KELLY,
Committee on Rules."

REPORT ON COMMUNICATION FROM THE CHICAGO AND DESPLAINES VALLEY ELECTRIC RAILWAY COMPANY.

Mr. Smyth, Chairman, presented, and the Clerk read, a report from the Joint Committee on Engineering and Judiciary, with reference to, and accompanied by, the communication from the Chicago and Desplaines Valley Electric Railway Company, petitioning the Board of Trustees to grant permission to that company to construct and operate a railway over and along the Summit and Lyons Road through the property belonging to the Sanitary District, presented and referred to that Committee at the meeting held August 31, 1898 (page 5147 of the Proceedings), the report recommending that the President and Clerk be authorized and directed to sign the frontage petition to the property owned by the District at the point de-
bed, upon the forms submitted by the
railway company and attached to
report.

r. Mallette, seconded by Mr. Jones,
ed that the report be adopted and
recommendations contained therein
curred in.

n roll-call the vote stood: Yeas—
ers. Boldenweck, Eckhart, Jones,
ly, Mallette and Wenter—six. Nays
essrs. Braden and Smyth—two.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, March 8, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Your Joint Committee on Engineering and Judiciary desires herewith to report that the Chicago and Desplaines Valley Electric Railway Company have petitioned your Honorable Body for permission to construct and operate a railway upon, over and along the highway known as the Summit and Lyons Road in the Village of Summit, running through property belonging to the Sanitary District, and that the consent of the District be granted said company to construct and operate its road upon the property of the District along the Summit and Lyons Highway from a point beginning at the northerly reserve line of the Illinois and Michigan Canal to the north bank of the Desplaines River.

Your Committee therefore recommends that the President and Clerk of the District be authorized and directed to sign the frontage consent of the property owned by the District at the point above described, upon the form submitted by said railway company and which is herewith attached.

Also attached hereto is a communication from said Chicago and Desplaines Valley Electric Railway Company to the Board of Trustees as above mentioned.

Respectfully submitted,

J. P. MALLETTE,
THOMAS KELLY,
B. A. ECKHART,
FRANK WENTER,
ALEX. J. JONES,
WM. BOLDENWECK.
Committee on Engineering and Judiciary.'

(Two enclosures.)

REPORT IN REFERENCE TO PROPOSED AGREEMENTS WITH THE CHICAGO AND DESPLAINES VALLEY ELECTRIC RAILWAY COMPANY FOR STREET RAILWAY PRIVILEGES AND MAINTENANCE OF BRIDGE.

On behalf of the Committee on Engineering, Mr. Smyth, Chairman, presented and the Clerk read a report with reference to, and accompanied by, forms

of two proposed agreements with the Chicago and and Desplaines Valley Electric Railway Company, providing for certain right of way privileges over the properties of said District: also that the District shall pay one-half the wages of a watchman and flagman under certain contingencies; and also providing that the Chicago and Desplaines Valley Electric Railway Compay shall pay the sum of $165.00 annually towards the maintenance of a bridge now in process of construction across the Main Channel along the Lyons and Summit Road.

Mr. Mallette, seconded by Mr. Jones, moved that the report be adopted and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Eckhart, Jones, Kelly, Mallette and Wenter—six. Nays—Messrs. Braden and Smyth—two. Excused and not voting—Mr. Carter—one.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, March 8, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Your Committee on Engineering having had under consideration the subject of the contracts between the Sanitary District of Chicago and the Chicago and Desplaines Valley Electric Railway Company, herewith desires to report as follows:

That the agreement proposed to be entered into by the parties above mentioned contemplates that the District shall have the privilege of crossing any street railway which the railway company may construct at or near the Village of Summit, with any steam or street railway which the District may in the future construct along or upon its right of way. That the District shall have the right of way of any street railway which the railway company may construct over and upon the bridge erected by the District across the Channel at said village, for the purpose of operating any cars over and across said bridge of any street or steam railway which the District may hereafter construct along its right of way. And also agrees to bear one-half (½) the expense of employing a watchman or flagman at said bridge or crossing in case the District should use the same for the purposes aforesaid. And also requires said railway company to extend the rights and privileges of the aforesaid contract to any street or steam railway company which the District may authorize to operate along or upon its right of way.

The form of contracts have also been prepared between the District and said railway company, whereby the railway company agrees with the District to pay the sum of one hundred and sixty-five ($165.00) dollars per annum towards the maintenance of the bridge now in process of construction across the Main Channel of the District along the Summit and Lyons Road.

Your Committee, therefore, recommends that the President and Clerk of the District be authorized and directed to execute, on behalf of the District, said contracts in the form hereto attached, and to make payment of the consideration mentioned herein when the same shall have been properly executed by said railway company.

Respectfully submitted,

(Signed) J. P. MALLETTE,
THOMAS KELLY,
B. A. ECKHART,
ALEX. J. JONES,
WM. BOLDENWECK,
Committee on Engineering."

(Accompanied by form of two agreements.)

COMMUNICATION FROM MESSRS. PEASE AND ALLEN IN REFERENCE TO LEASE OF LAND.

The Clerk presented a communication from Messrs. Pease & Allen, attorneys, setting forth that Richard Marshall, a client, desires to rent certain lands owned by the District for farm purposes, which, by unanimous consent, was ordered referred to the Committee on Engineering without printing.

COMMUNICATION FROM ALBERT PIGARSCH, WITH REFERENCE TO GRASS AND CROP PRIVILEGES ON SANITARY DISTRICT LAND.

The Clerk presented a communication from Albert Pigarsch applying for the privilege of taking the grass and crop from certain ground on Section "D," known as Burke's Pasture Land, between the new canal and Desplaines River near Gary, which, by unanimous consent, was referred to the Committee on Engineering without printing.

ORDER IN REFERENCE TO CERTAIN CONDEMNATION PROCEEDINGS IN COOK COUNTY.

Mr. Mallette, presented and, seconded by Mr. Jones, moved the adoption of the following

ORDER.

"*Ordered*, That the Attorney be and he is hereby directed to institute condemnation proceedings in such Court as he may deem best for the condemnation of the right of way for the Main Channel of the Sanitary District of Chicago across the right of way of the Chicago, Santa Fe and California Railway Company in Section twenty (20), Township thirty-seven (37) North, Range eleven (11) east of the Third Principal Meridian, Cook County, Illinois, and the right to elevate the tracks of said railway company at the point of crossing and also on either side thereof in order to make the grade of said railway tracks sufficiently easy for the operation of trains thereon; and also to condemn the right to elevate the tracks of said railway company where the same cross Stephens Street in the Town of Lemont, Cook County, Illinois, and to slightly change the alignment of said tracks at the point of crossing said Stephens Street in accordance with the plans of the Sanitary District of Chicago and to grade said Stephens Street on each side of said railway tracks sufficiently to allow the use of said Stephens Street by the public over the tracks aforesaid.

On roll-call on the motion for the adoption of the order the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—nine. Nays—none.

Upon this result the President declared the motion carried.

ADJOURNMENT.

On motion of Mr. Mallette, seconded by Mr. Kelly, the Board then adjourned.

Joseph F. Haas

Clerk.

PROCEEDINGS

—OF THE—

BOARD OF TRUSTEES

—OF THE—

SANITARY DISTRICT OF CHICAGO.

MARCH 15 AND 17, 1899.

OFFICIAL RECORD.

Published by authority of the Board of Trustees of the Sanitary District of Chicago.

REGULAR MEETING.

The four hundred and thirtieth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Wednesday, March 15, 1899, at 2 o'clock P. M.

On roll-call Messrs. Boldenweck, Car- and Smyth—three members, were sent. No quorum.

On motion of Mr. Smyth, seconded by . Carter, the Board then adjourned to et Friday, March 17, 1899, at 2 o'clock M.

Joseph F. Haas

Clerk.

OFFICIAL RECORD.

Published by authority of the Board of Trustees of the Sanitary District of Chicago.

ADJOURNED MEETING.

The adjourned session of the four hundred and thirtieth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Friday, March 17, 1899, at 2 o'clock P. M., pursuant to motion.

On roll-call Messrs. Boldenweck, Braden, Jones, Mallette and Wenter—five members, were present.

President Boldenweck then called the Board to order.

*VOUCHERS.

The Clerk presented the following vouchers:

ENGINEERING DEPARTMENT.

W. T. Keating (traveling and expense)	$ 56 96	
The Toledo Bridge Company (inspection of steel and iron)	119 25	
		$ 176 21

GENERAL ACCOUNT.

John F. Higgins (printing proceedings, etc., February, 1899)	$ 374 41

CONSTRUCTION ACCOUNT.

George M. Huss (Belt Railway Temporary Bridge)	$ 409 56	
The Toldo Bridge Company (C., M. & N. Bridge)	12,832 99	
		$13,242 55
Total		$13,793 17

*To be paid by warrants, with interest coupons attached, drawn against the tax levy for 1899.

Mr. Wenter, seconded by Mr. Braden, moved that the vouchers as read and shown above be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Jones, Mallette and Wenter—five. Nays—none.

Upon this result the President declared the motion carried.

REQUISITION.

The Clerk presented the following requisition:

No. 961, Police Department (four barrels kerosene).....$20 00

Mr. Jones, seconded by Mr. Mallette, moved that requisition No. 961, as read and shown above be allowed.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Jones, Mallette and Wenter—five. Nays—none.

Upon this result the President declared the motion carried.

WEEKLY REPORT ON EMPLOYES.

The Clerk presented a report in accordance with the rules, showing the number of persons in the employ of the District for the week ending March 11, 1899, which was read and by unanimous consent was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, March 17, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the week ending March 11, 1899, as the same have been reported to me:

Engineering department	78
Maintenance account	8
Clerical department	5
Law department	8
Treasury department	1
Police department	29
Telephone operator	1
Total employes	130

Respectfully submitted,

(Signed) JOSEPH F. HAAS,

Clerk."

MONTHLY REPORT FROM CLERICAL DEPARTMENT.

The Clerk presented a report from the Clerical Department for the month of February, 1899, which was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, March 1, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I herewith submit the report of the Clerical Department for the month of February, 1899:

The total expenditure of the District for the month was $226 098.79, of which amount the sum of $224,703.27 was paid in 1898 Tax Levy Warrants and $1,395.52 by the Treasurer of the District for which no warrant was required. Of the 1898 Tax Levy Warrants issued the sum

of $804.28 was placed in the hands of the Treasurer and regular warrants drawn in the aggregate for this amount against the same, as per authority of the Board.

Of the amount paid by the Treasurer the sum of $1,354.42 was for 1897 Tax Warrants redeemed and $41.10 for interest on warrants redeemed.

The total amount expended on account of and charged to the Clerical Department during the month of February was $1,079.26, of which amount the sum of $1,033.33 was for salaries and the sum of $45.93 for general office expenses.

There are no outstanding liabilities against the Clerical Department and the expenditure for the present month will be about $1,000.

The total amount expended for account of, and charged to, the General Account during the month of February was $3,846.85, divided as follows:

Rent for February	$ 483 33
Printing	126 99
Advertising	135 30
Salaries	2,393 33
Telephone service	491 70
General expenses	216 20
Total	$ 3,846 85

The expenditure for the present month for the General Account will be about $3,000.

Of the total amount of 1896 Tax Levy Warrants issued there is now outstanding the sum of $12,709.35; of the 1897 Tax Levy Warrants issued there is now outstanding the sum of $15,119.00, and of the 1898 Tax Levy Warrants issued to date the total amount is now outstanding and amounts to the sum of $1,883,785.93.

The following is a tabulated statement of total expenditures for the month of February, 1899.

ACCOUNT.	1898 Tax Levy Warrants.	Paid by Treasurer.	Total for Month.
Engineering Department	$ 9,869 52	.....	$ 9,869 52
Construction	201,700 03	.....	201,700 03
Clerical Department	1,079 26	.....	1,079 26
Law Department	3,586 35	.....	3,586 35
Land	487 95	.....	487 95
Treasury Department	166 66	.....	166 66
General	3,846 85	.....	3,846 85
Police Department	2,490 46	.....	2,490 46
Maintenance	1,476 19	.....	1,476 19
1897 Tax Warrants redeemed	.....	$ 1,354 42	1,354 42
Interest on Warrants redeemed	.....	41 10	41 10
Totals	$224,703 27	$ 1,395 52	$226,098 79

Respectfully submitted,

(Signed) Jos. F. Haas, *Clerk.*"

REPORT ON COMMUNICATIONS IN REFERENCE TO RELEASE OF BONDS ON CONTRACT FOR SUPERSTRUCTURE OF A., T. & S. F. RY. BRIDGE NEAR EAST END OF SECTION G. AND ON CONTRACT FOR SECTION F.

The Clerk presented a report from the the Chief Engineer transmitting communication from the Carnegie Steel Company Ltd., in reference to release of their bond on superstructure for A., T. & S. F. Ry. Bridge near east end of Section G; also communication from the City Trust, Safe Deposit and Surety Company of Philadelphia in reference to release of bond of Messrs. Gahan & Byrne on contract for Section F, which, by unanimous consent, was referred to the Committee on Engineering on motion of Mr. Mallette, seconded by Mr. Jones.

The following is

THE REPORT:

"CHICAGO, March 13, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I am in receipt of a communication from the Carnegie Steel Company, requesting release of bond given on account of bridge which they erected for us on Section "G."

Mr. Gahan, of the firm of Gahan & Byrne, has also presented me with a communication from the City Trust Safe Deposit and Surety Company, of Philadelphia, asking for a release of their bond on Section "F."

I transmit both communications for your consideration.

Yours, truly,

(Signed) ISHAM RANDOLPH,
Chief Engineer."

(Four enclosures.)

REPORT ON COMMUNICATION IN REFERENCE TO SALE OF ADAMS STOREHOUSE.

On behalf of the Committee on Finance Mr. Wenter presented and the Clerk read a report from that committee in reference to and accompanied by a communication from the office of Haley & O'Donnell at Joliet, asking instructions as to the acceptance of the sum of $100 for the building known as the Adams storehouse on Desplaines Street, Joliet, the report recommending that the President and Clerk be authorized and directed to execute the necessary papers for the sale and transfer of said building, on the payment of said sum, and on the condition that said building be removed from the premises of the District.

Mr. Wenter, seconded by Mr. Braden, moved that the report be adopted and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Jones, Mallette and Wenter—five. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, March 8, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Your Committee on Finance desires herewith to make report that the Attorney of the District has handed the Committee the communication from the office of Messrs. Haley & O'Donnell, at Joliet, asking instructions as to whether the Custodian of the property of the District at Joliet should accept the sum of one hundred ($100.00) dollars for the building known as the Adams store-house on Desplaines street between Jefferson and Cass streets.

The Committee desires to inform your Honorable Body that it can see no further use for the building aforesaid in so far as the service of the District is concerned, and, therefore, advises that the offer made Mr. John W. Nadelhoffer be accepted, provided the same be promptly removed.

The Committee recommends that the President and Clerk of the District be authorized and directed to execute the necessary papers for the sale and transfer of said building in Joliet upon the payment of the sum above specified and upon the condition that said building be removed from the premises of the District from where it is now situated.

Attached hereto is the communication as above mentioned for filing.

Respectfully submitted,

Z. R. CARTER,
Chairman.

FRANK WENTER,

ALEX. J. JONES,

Committee on Finance."

(One enclosure.)

REPORT IN REFERENCE TO AGREEMENTS WITH METROPOLITAN WEST SIDE ELEVATED RAILWAY COMPANY FOR BY-PASS, ETC.

On behalf the Committee on Engineering, Mr. Wenter presented, and the Clerk read, a report from that Committee in reference to proposed agreements with the Metropolitan West Side Elevated Railway Company for the construction and maintenance of By-pass etc., in accordance with the terms of contract entered into between the District and the Pennsylvania Company under date of February 9, 1898; the report being accompanied by form of a proposed agreement in duplicate betwee the said Sanitary District and the sai Metropolitan West Side Elevated Rai way Company, under the terms of whic said proposed agreement it is provide that the said Sanitary District shall b

fore interfering with the present tunnel procure an additional agreement between the Pennsylvania Company and the said Metropolitan West Side Elevated Railway Company, granting the right to construct, maintain and operate a certain intake and tunnel located as shown upon Exhibit "A" thereto attached, and the means of access to said intake, as also shown upon said Exhibit A," forms of said proposed agreement in duplicate between the Pennsylvania Company, the Metropolitan West Side Elevated Railway Company and the Sanitary District of Chicago also accompaning the report; and the report recommending that the President and Clerk of the District be authorized and directed to execute said contracts in the form submitted when said contracts have been executed by said railway company and returned to the District for execution.

Mr. Mallette, seconded by Mr. Jones, moved that the report be adopted and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Jones, Mallette, and Wenter—five. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

CHICAGO, March 13, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Your Committee on Engineering desires herewith to report that it has received from the Attorney certain drafts of contracts between the Sanitary District of Chicago and the Metropolitan West Side Elevated Railway Company, providing as follows:

That said railway company consents at the District may construct and maintain the by-pass or covered conduit cording to the terms of a contract tered into between said District and e Pennsylvania Company, operating e Pittsburgh, Fort Wayne and Chicago ailway, which is dated February 9, 898.

That the District agrees at its own cost nd expense to construct a new intake for the tunnel mentioned in said contract at the intersection of said by-pass or covered conduit with said tunnel, with all necessary appliances, which shall be approved by the railway company.

That it shall construct the necessary means of access to said intake, and shall procure the right from said Pennsylvania Company to construct, maintain and operate said intake and tunnel before interfering with the present tunnel.

That it shall provide full and sufficient means for supplying the said new tunnel, for use in the power station mentioned in said contract, an amount of water equal to the capacity of the present tunnel.

That the District agrees to have said covered conduit or by-pass completed on or before the first day of September, 1899, unless delayed by the acts of said railway company.

That the District also agrees to keep and maintain said conduit or by-pass clean and free from any foreign substance whatever.

That in case of the discontinuance of the use of said conduit or by-pass by the District, it shall at once reconstruct said tunnel as aforesaid, as described in said contract according to the terms of said agreement.

That the District agrees to construct said conduit with great care and in such a manner as to prevent any injury whatsoever to the structure of the railroad bridge, and in case of damage thereto assumes liability.

The Attorney of the District has examined said drafts of contract and has approved the same in so far as the legal status thereof is concerned.

The Committee desires to say that the drafts of contract herewith submitted were prepared at the direction of the Committee in order to facilitate the work now in progress and to the end that a full completion of the work might be attained at the earliest possible moment.

The Committee, therefore, recommends that the President and Clerk of the District be authorized and directed to enter into said contracts in the form herewith submitted and to execute the same on the part of the District, when said contracts shall have been executed by said

Railway Company and returned to the District for execution.

Respectfully Submitted,

(Signed) THOMAS A. SMYTH,
Chairman.

J. P. MALLETTE,
JOS. C. BRADEN,
Z. R. CARTER,
FRANK WENTER,
ALEX. J. JONES.
WM. BOLDENWECK,
Committee on Engineering.

(Accompanied by forms of two agreements in duplicate.)

PRESENTATION OF BIDS FOR SUB AND SUPERSTRUCTURE OF TWO BRIDGES CROSSING THE DESPLAINES RIVER ON LINE OF JEFFERSON AND CASS STREETS IN THE CITY OF JOLIET.

The President then announced that in conformity with the advertisement inviting "proposals for sub and superstructure of two bridges crossing Desplaines River on line of Jefferson and Cass streets in the City of Joliet," giving sixty days notice, as required by the Sanitary District Act, the Board would now proceed to open bids received in response to said advertisement.

The Clerk then proceeded to open the bids as shown hereafter.

In the same connection the President then presented and the Clerk read a communication from the Toledo Bridge Company making certain statements in regard to their bid.

Mr. Wenter, seconded by Mr. Mallette, moved that the bids just received be compiled, summarized and tabulated by the Chief Engineer, and with the communication above noted, be referred to the Committee on Engineering.

The motion prevailed unanimously and it was so ordered.

The following is

THE SCHEDULE OF BIDS FOR ERECTING THE SUB. AND SUPERSTRUCTURE OF TWO BRIDGES CROSSING DESPLAINES RIVER ON LINE OF JEFFERSON AND CASS STREETS IN CITY OF JOLIET.

No. of bid as received.	NAME AND ADDRESS OF BIDDER.	Amount deposited with bid.
1	The J. G. Wagner Co., Milwaukee, Wis	$3,000 00
2	Chicago Bridge & Iron Co., Chicago, Ill	3,000 00
3	The Toledo Bridge Co., Toledo, Ohio	3,000 00

The following are

THE BIDS IN DETAIL FOR ERECTING THE SUB AND SUPERSTRUCTURE OF A BRIDGE

In Order of Magnitude—Lowe

No. of bid as received.	No. bid in order of magnitude.	NAME AND ADDRESS OF BIDDER.	—a— Deviating Pipes onto Temporary Structure. Lump Sum.	—b— Removal of Old Masonry. 2880 C. Y.		—c— Earth Excavation. 3000 C. Y.		—d— Rock Excavation. 104 C. Y.		—e— Timber in Temporary Structure 116,000 ft. B. M.	
				Price per C. Y.	Total.	Price per C. Y.	Total.	Price per C. Y.	Total.	Price per 1000 ft. B.M.	Total.
1	1	The J. G. Wagner Co., Milwaukee, Wis.....	$500 00	$2 00	$5,760 00	$ 60	$1,800 00	$4 00	$416 00	$50 00	$5,800 0
3	2	The Toledo Bridge Co., Toledo, Ohio.....	375 00	85	2,448 00	50	1,500 00	1 00	104 00	23 00	2,668 0
3	3	Chicago Bridge & Iron Co., Chicago, Ill.....	300 00	2 10	6,048 00	42	1,260 00	1 10	114 40	30 00	3,480 0

The following are

THE BIDS IN DETAIL FOR ERECTING THE SUB AND SUPERSTRUCTURE OF A BRIDG

In Order of Magnitude—Lowe

No. of bid as received.	No. bid in order of magnitude.	NAME AND ADDRESS OF BIDDER.	—a— Removal of Old Superstructure. Lump Sum.	—b— Removal of Old Masonry. 560 C. Y.		—c— Earth Excavation. 2850 C. Y.		—d— Rock Excavation. 52 C. Y.		—e— Timber in Temporary Structure 3000 ft. B. M.	
				Price per C. Y.	Total.	Price per C. Y.	Total.	Price per C. Y.	Total.	Price per 1000 ft. B.M.	Total
3	1	The Toledo Bridge Co., Toledo, Ohio.....	$50 00	$ 85	$ 476 00	$0 50	$1,425 00	$1 00	$ 52 00	$20 00	$ 60
1	2	The J. G. Wagner Co., Milwaukee, Wis.....	500 00	2 00	1,120 00	60	1,710 00	4 00	208 00	50 00	150
2	3	Chicago Bridge & Iron Co., Chicago, Ill.....	500 00	1 60	896 00	42	1,197 00	90	46 80	27 00	81

OSSING THE DESPLAINES RIVER ON LINE OF JEFFERSON STREET, IN CITY OF JOLIET.
d First—Opened March 17, 1899.

—f— C. Concrete. 1151 C. Y.		—g— Masonry. 91 C. Y.		—h— Pavement. 260 Sq. Yds.		—i— Superstructure. Lump Sum.	—j— Extra Medium or Soft Steel. Price per Lb.	—k— Extra Cast Iron. Price per Lb.	—l— Extra Lumber. Price per 1000 ft. B. M.	Total.
rice per Y.	Total.	Price per C. Y.	Total.	Price per Sq. Yd.	Total.					
.75	$6,618 25	$13 00	$1,183 00	$1 50	$ 390 00	$23,160 00	$0 3.5	$0 3	$28 00	$45,627 25
.69	6,445 80	11 00	1,001 00	1 20	312 00	31,200 00	3.6	3	28 00	46,053 60
.62	8,770 62	12 60	1,146 60	3 00	780 00	24,834 00	3.75	2.75	35 00	46,733 62

OSSING THE DESPLAINES RIVER ON LINE OF CASS STREET, IN CITY OF JOLIET.
d First—Opened March 17, 1899.

—f— C. Concrete. 905 C. Y.		—g— Masonry. 31 C. Y.		—h— Pavement. 250 Sq. Yds.		—i— Superstructure. Lump Sum.	—j— Extra Medium or Soft Steel. Price per Lb.	—k— Extra Cast Iron. Price per Lb.	—l— Extra Lumber. Price per 1000 ft. B. M.	Total.
per Y.	Total.	Price per C. Y.	Total.	Price per Sq. Yd.	Total.					
[illegible]	$3,724 00	$11 00	$ 341 00	$1 20	$ 300 00	$25,000 00	$0 3.6	$0 3	$28 00	$31,428 00
.75	2,823 75	13 00	403 00	1 50	375 00	29,976 00	3.5	3	28 00	38,265 75
.62	4,887 75	19 00	589 00	3 00	750 00	30,732 00	3.75	2.75	35 00	30,679 55

ADJOURNMENT.

On motion of Mr. Wenter, seconded by Mr. Braden, the Board then adjourned.

Joseph F. Haas

Clerk.

PROCEEDINGS

—OF THE—

BOARD OF TRUSTEES

—OF THE—

SANITARY DISTRICT OF CHICAGO.

MARCH 22, 1899.

OFFICIAL RECORD

Published by authority of the Board of Trustees of the Sanitary District of Chicago.

REGULAR MEETING.

The four hundred and thirty-first reg ular meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Wednesday, March 22, 1899, at 2 o'clock, P. M.

On roll-call Messrs. Boldenweck, Braden, Mallette, Smyth and Wenter—five members, were present; Mr. Jones riving subsequently.

President Boldenweck then called the ard to order.

MINUTES.

The minutes of the regular meeting d March 8, 1899, were approved as nted, on motion of Mr. Wenter, seded by Mr. Mallette.

SSAGE IN REFERENCE TO PERMITS FOR CERTAIN CONSTRUCTION WORK.

resident Boldenweck presented and the Clerk read a message transmitting, for printing and filing, letters from the Secretary of War in reference to permits for the construction of coffer-dam at Adams street, for the construction of temporary and permanent bridge for the Chicago Terminal Transfer Railroad Co. and the construction of permanent bridge at Taylor street, which by unanimous consent was ordered received, printed and placed on file.

The following is

THE MESSAGE:

"CHICAGO, March 22, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN:—I transmit herewith to your Honorable Body, for printing in the proceedings and filing, letters enclosing permits granted by the Hon. R. A. Alger, Secretary of War, for the construction of coffer dam at Adams street, for the construction of temporary and permanent bridge for the Chicago Terminal Transfer Railroad Company,

and the construction of permanent bridge at Taylor street.

Respectfully submitted,

(Signed) WILLIAM BOLDENWECK.

President.

(3 enclosures.)

The following are

THE LETTERS.

"WAR DEPARTMENT,
WASHINGTON, November 30, 1898.

SIR—Referring to your application of 12th inst., I have the honor to transmit herewith an instrument granting permission to the Board of Trustees of the Sanitary District of Chicago to construct a temporary coffer-dam around the east side of the center pier of Adams Street Bridge, in Chicago river, at Chicago, Illinois, and to deposit clay outside the coffer-dam running north and south from center pier and extending into the bank, upon the conditions set forth in said instrument.

Very respectfully,

(Signed.) R. A. ALGER,

Secretary of War."

MR. WILLIAM BOLDENWECK,

President, The Sanitary District of Chicago, Security Building, Chicago, Illinois.

(Inclosure: Instrument—2 of 8302).

"WAR DEPARTMENT,
WASHINGTON, January 13, 1899.

SIR—Referring to your application of 16th ultimo., I have the honor to transmit herewith an instrument approving the location and plans of a permanent and a temporary bridge, to be constructed by The Sanitary District of Chicago over the South Branch of the Chicago river, at Chicago, Illinois.

Very respectfully,

(Signed.) R. A. ALGER,

Secretary of War."

MR. WILLIAM BOLDENWECK,

President, The Sanitary District of Chicago, Security Building, Chicago, Illinois.

(Inc losure: Instrument—1 of 8887).

"WAR DEPARTMENT,
WASHINGTON, March 10, 1899.

SIR—Referring to your application of 27th ultimo., I have the honor to transmit herewith an instrument approving the map of location and plans of a bridge to be constructed by The Sanitary District of Chicago across the South Branch of Chicago river, at Taylor street, Chicago, Illinois, to replace the existing bridge at this point.

Very respectfully,

(Signed.) R. A. ALGER,

Secretary of War."

MR. WILLIAM BOLDENWECK,

President, The Sanitary District of Chicago, Security Building, Chicago, Illinois.

(Inclosure: Instrument—2 of 1394),

WEEKLY REPORT ON EMPLOYES.

The Clerk presented a report in accordance with the rules, showing the number of persons in the employ of the District for the week ending March 18, 1899, which was read and by unanimous consent was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, March 22, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I beg leave to report herewith the number of persons in the employ of the District for the week ending March 18, 1899, as the same have been reported to me:

Engineering department	78
Maintenance account	8
Clerical department	5
Law department	8
Treasury department	1
Police department	29
Telephone operator	1
Total employes	130

Respectfully submitted,

(Signed) JOSEPH F. HAAS,

Clerk."

MONTHLY REPORT FROM LAW DEPARTMENT.

The Clerk presented a report from the Law Department for the month of February, 1899, which was read, and by unanimous consent was ordered printed and placed on file.

The following is

THE REPORT.

"CHICAGO, March 8, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—The following is my report for the month of February, 1899:

The expenses of the Department for such month are as follows:

SALARIES.

Attorneys.....	$ 1,366 68	
Office force.....	400 00	
		$ 1,766 68

GENERAL EXPENSES.

Court costs.....	$ 216 75	
Right of way (salaries).....	125 00	
Expense account....	868 00	
Legal services.....	416 67	
Books, printing and stationery.....	40 75	
		$ 1,667 17

LAND ACCOUNT.

Abstracts—Will County.....	$ 640 45
Total for February 1, 1899...	$ 4,074 30

The several matters passed upon and occupying the attention of the Department may be briefly summarized as follows:

The case of Cook & Rathborne Company, appellant, versus the Sanitary District of Chicago, appellee, in the Supreme Court of Illinois, has been decided in favor of the Sanitary District, its position being sustained on all points. An order has been entered in the lower court that the District pay appellant the amount awarded in the original trial.

Peter McCullogh versus the Sanitary District of Chicago. Gen. No. 156,775, in the Circuit Court of Cook County, was dismissed on first call and finding for ıfendant and judgment for want of ɔsecution.

The case of M. P. Schuster, appellant, ersus the Sanitary District of Chicago, ppellee, in the Supreme Court of Illiois, has been affirmed.

The case of O. Hero versus the Sanitry District of Chicago, Gen. No. 165,-16, in the Circuit Court of Cook County, jury was waived and the case was ıbmitted to the Court and a finding entered for the plaintiff for one hundred and twelve and fifty-eight hundredths ($112.58) dollars and costs, and judgment on the finding. A motion for a new trial was made and overruled. An appeal has been prayed and allowed to the Appellate Court. This case involves the same questions of law as that of Bourke versus the Sanitary District.

The case of the Sanitary District of Chicago versus Chester S. Allen, in the Supreme Court of Illinois, has been affirmed. This will necessitate the securing of the property in question by condemnation or otherwise.

The case of the Sanitary District of Chicago, appellant, versus Nathaniel H. Ricker, Francis L. Lee and Joseph A. Owens, appellee, in the United States Court of Appeals, has been reversed and remanded. The court held that there was no fraud on the part of the Sanitary District, and that had there been fraudulent representations made by it, they were waived by the contractors on continuing the excavation under the contract.

During the month contracts with the Joliet Electric Railroad Company and the Chicago and Desplaines Valley Electric Railway Company have been prepared. An opinion in reference to the annexation of the Calumet District to the Sanitary District has been rendered and certain acts now before the Illinois Legislature have been examined.

The coming month will be occupied in preparing for and attending to the various litigation of the District; preparation of contracts and the routine work of the Department.

Respectfully submitted,

(Signed.) CHARLES C. GILBERT,

Attorney."

REPORT ON COMMUNICATION IN REFERENCE TO PURCHASE OF POLICE STATION NEAR SAG BRIDGE.

On behalf of the Committee on Finance, Mr. Wenter presented, and the Clerk read, a report with reference to and accompanied by communication from Timothy Carroll, offering $100 for the building heretofore used as a police station near Sag Bridge, Illinois, presented and referred to that committee at the meeting held February 8, 1899 (page 5459 of the Proceedings), the report setting forth that the Committee have sold said premises to said Carroll at the price named, and recom-

mending that their action in the premises be approved and confirmed.

Mr. Wenter, seconded by Mr. Mallette, moved that the report be adopted and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Mallette, Smyth and Wenter—five. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, March 14, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN:—Your Committee on Finance to whom was referred the bid of Timothy Carroll (page 5459 of the Proceedings) for the building formerly used as a police station, standing on leased ground near Sag Bridge, Illinois, beg leave to report that upon full and careful investigation they considered the bid of Mr. Carroll a just and equitable one and have sold said premises to him for the price named in said bid, i. e., $100, and acknowledgment in full and release of the Sanitary District of all and further liabilities under lease dated December 8, 1892.

Your Committee therefore recommends that their action in the premises be approved and confirmed.

Respectfully submitted,

(Signed) Z. R. CARTER,
Chairman.
FRANK WENTER,
ALEX. J. JONES,
Committee on Finance."

(3 enclosures.)

REPORT ON COMMUNICATION FROM MESSRS. PEASE & ALLEN AND ALBERT PIGARSCH.

Mr. Smyth, Chairman, presented, and the Clerk read, a report from the Committee on Engineering with reference to and accompanied by communications from Albert Pigarsch and from Messrs. Pease & Allen, attorneys for Richard Marshall, presented and referred to that committee at a meeting held March 8, 1899 (page 5568 of the Proceedings) the report being accompanied also by official communications in reference to the same from the President of the Board and Marshal of the District, and recommending that the President and Clerk of the District be authorized and directed to execute on behalf of the District a lease or leases to Albert Pigarsch and Richard Marshall or such person or persons as may desire to rent the lands not used by the District upon Sections A, B, C and D at a rental of not less than $3.00 per acre per annum.

Mr. Smyth, seconded by Mr. Wenter, moved that the report be adopted and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Jones, Mallette, Smyth and Wenter—six. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, March 8, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Your Committee on Engineering to whom was referred at the meeting of the Board of Trustees held on March 8, 1899, (page 5568 of the Proceedings) the communications from Albert Pigarsch and from Messrs. Pease & Allen, attorneys for Richard Marshall with reference to obtaining rental privileges from the District for lands owned by it in sections A, B, C and D, herewith makes report that the committee has received advices from the President of the Board of Trustees and the Marshal of the District to the end that it is desirable for the interests of the District to rent the lands mentioned. In his report to the President of the Board the Marshal of the District having made full investigation of the matter states that the District has no immediate use for the lands mentioned. That as a matter of expediency and protection to the property of the District from probability of fires on account of the combustible material now growing thereon, which may become ignited by sparks from the railroads running parallel therewith, he would advise said lands be rented. That three ($3.00) dollars per acre per annum is a fair rental sum at which the rate of rent should be fixed, and that no barns or other structures be erected thereon.

In view of the representations made to the Committee by the Marshal of the District and the communication of the President of the Board of Trustees with

reference thereto, your Committee recommends that the President and Clerk of the District be authorized and directed to execute on behalf of the District, a lease or leases to Albert Pigarsch and Richard Marshall, or to such person or persons as may desire to rent the lands not used by the District upon Sections A, B, C and D, at a rental not less than three ($3.00) per acre per annum.

Attached hereto are the communications above referred to for filing.

Respectfully submitted,

(Signed) THOMAS A. SMYTH,
Chairman.

J. P. MALLETTE,
JOS. C. BRADEN,
FRANK WENTER,
WM. BOLDENWECK,
Committee on Engineering."

(4 enclosures.)

COMMUNICATIONS IN REFERENCE TO RELEASE OF BOND ON CONTRACT FOR SUPERSTRUCTURE FOR C., M. & N. R. R. BRIDGE NEAR EAST END OF SECTION N AND ON CONTRACT FOR SUBSTRUCTURE FOR KEDZIE AVENUE BRIDGE ON SECTION N.

The Clerk presented communications from The City Trust, Safe Deposit and Surety Company of Philadelphia, in reference to the release of bond of Toledo Bridge Company on their contract for the superstructure for the C. M. & N. R. R. Bridge near east end of Section N and bond of Chicago Star Construction & Dredging Company on contract for substructure of Kedzie Avenue Bridge on Section N, which by unanimous consent were referred to the Joint Committee on Finance and Engineering.

COMMUNICATION FROM ANGUS & GINDELE IN REFERENCE TO PAYMENT OF CERTAIN CLAIMS.

The Clerk presented a communication from Messrs. Angus & Gindele in reference to the payment by Messrs. Halerson, Richards & Co., their successors on contract for Section E, of certain claims against said Angus & Gindele, which by unanimous consent was referred to the Joint Committee on Judiciary and Engineering.

ORDER IN REFERENCE TO PAYMENT OF CERTAIN MONEY TO, AND EXECUTION OF AGREEMENT WITH, C., R. I. & P. RY. CO.

Mr. Smyth presented and the Clerk read the following

ORDER:

"*Ordered*, That the President and Clerk of the District are hereby authorized to deposit with the Chicago, Rock Island & Pacific Railway Company in Chicago a sum of money estimated by the Chief Engineer to be the cost of constructing the Railroad Bridge at Joliet, over and upon which the said Chicago, Rock Island & Pacific Railway Company will pass its trains across the Main Channel of the Sanitary District. Said sum of money to be deposited upon condition that said Railway Company will construct said bridge in accordance with the contract heretofore entered into by and between the Sanitary District of Chicago and said Railway Company, and as liquidated damages for the use and occupation of the right of way of said Railway company by the Sanitary District of Chicago; it is further

Ordered, That the President and Clerk of the District be and they are hereby authorized to enter into a Supplemental Agreement or Contract with said Railway Company for the purpose of carrying out the meaning and intent of this order and the right to occupy said property."

Mr. Mallette, seconded by Mr. Smyth moved the adoption of the order.

On roll call on the motion for the adoption of the order the vote stood: Yeas—Messrs. Boldenweck, Braden, Jones, Mallette, Smyth and Wenter—six. Nays—None.

Upon this result the President declared the motion carried.

ADJOURNMENT.

On motion of Mr. Mallette, seconded by Mr. Wenter, the Board then adjourned.

Joseph F. Haas
Clerk.

ADJOURNMENT.

On motion of Mr. Wenter, seconded by Mr. Braden, the Board then adjourned.

Joseph F. Haas

Clerk.

PROCEEDINGS

—OF THE—

BOARD OF TRUSTEES

—OF THE—

SANITARY DISTRICT OF CHICAGO.

MARCH 22, 1899.

OFFICIAL RECORD

Published by authority of the Board of Trustees of the Sanitary District of Chicago.

REGULAR MEETING.

The four hundred and thirty-first reg ular meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Wednesday, March 22, 1899, at 2 o'clock, P. M.

On roll-call Messrs. Boldenweck, Braden, Mallette, Smyth and Wenter—five members, were present; Mr. Jones riving subsequently.

President Boldenweck then called the oard to order.

MINUTES.

The minutes of the regular meeting ld March 8, 1899, were approved as inted, on motion of Mr. Wenter, sec- ded by Mr. Mallette.

ESSAGE IN REFERENCE TO PERMITS FOR CERTAIN CONSTRUCTION WORK.

President Boldenweck presented and the Clerk read a message transmitting, for printing and filing, letters from the Secretary of War in reference to permits for the construction of coffer-dam at Adams street, for the construction of temporary and permanent bridge for the Chicago Terminal Transfer Railroad Co. and the construction of permanent bridge at Taylor street, which by unanimous consent was ordered received, printed and placed on file.

The following is

THE MESSAGE:

"CHICAGO, March 22, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN:—I transmit herewith to your Honorable Body, for printing in the proceedings and filing, letters enclosing permits granted by the Hon. R. A. Alger, Secretary of War, for the construction of coffer dam at Adams street, for the construction of temporary and permanent bridge for the Chicago Terminal Transfer Railroad Company,

ADJOURNMENT.

On motion of Mr. Wenter, seconded by Mr. Braden, the Board then adjourned.

Joseph F. Haas

Clerk.

PROCEEDINGS

—OF THE—

BOARD OF TRUSTEES

—OF THE—

SANITARY DISTRICT OF CHICAGO.

MARCH 22, 1899.

OFFICIAL RECORD

Published by authority of the Board of Trustees of the Sanitary District of Chicago.

REGULAR MEETING.

The four hundred and thirty-first reg ular meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Wednesday, March 22, 1899, at 2 o'clock, P. M.

On roll-call Messrs. Boldenweck, Braden, Mallette, Smyth and Wenter—five members, were present; Mr. Jones riving subsequently.

President Boldenweck then called the ard to order.

MINUTES.

The minutes of the regular meeting ld March 8, 1899, were approved as inted, on motion of Mr. Wenter, sec-ded by Mr. Mallette.

ESSAGE IN REFERENCE TO PERMITS FOR CERTAIN CONSTRUCTION WORK.

President Boldenweck presented and the Clerk read a message transmitting, for printing and filing, letters from the Secretary of War in reference to permits for the construction of coffer-dam at Adams street, for the construction of temporary and permanent bridge for the Chicago Terminal Transfer Railroad Co. and the construction of permanent bridge at Taylor street, which by unanimous consent was ordered received, printed and placed on file.

The following is

THE MESSAGE:

"CHICAGO, March 22, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN:—I transmit herewith to your Honorable Body, for printing in the proceedings and filing, letters enclosing permits granted by the Hon. R. A. Alger, Secretary of War, for the construction of coffer dam at Adams street, for the construction of temporary and permanent bridge for the Chicago Terminal Transfer Railroad Company,

The following is

THE REPORT.

"CHICAGO, March 13, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Your Committee on Finance desires herewith to make report that the committee has had before it for consideration the communication from the attorney of the District with reference to a statement rendered by the Chicago, Madison & Northern Railroad Company to the District for one hundred and forty-four and ninety six hundredths ($144.96) dollars, alleged to have been paid by said company for an easement over a tract of land described more fully in said communication. That in the opinion of the attorney the amount charged by said company actually falls within the provisions of a contract existing between said Chicago, Madison & Northern Railroad Company and the District, approved June 23, 1897, at a meeting of the Board of Trustees (page 4089 of the Proceedings), whereby the District agrees under section 1 of article 2 of said contract to pay for "everything incident to or necessitated by the said change of right of way, alignment, grade or construction, maintenance and operation of its Main Channel." And also that it will "make and pay for all changes in the right of way, alignment and grade of the railroad company" made necessary by reason of the construction of said Channel.

In view of the facts submitted the committee deems it advisable that the account rendered should be paid.

The committee, therefore, recommends that the President and Clerk of the District be authorized and directed to make payment in the sum of one hundred forty-four and ninety-six hundredths ($144.96) dollars on behalf of the District to said railroad company when proper evidences of the payment of said sum by said company shall have been furnished to the District, and when said company shall have executed a proper receipt therefor.

Respectfully submitted,

(Signed) Z. R. CARTER,
Chairman.

FRANK WENTER,

ALEX. J. JONES,

Committee on Finance."

(Four enclosures.)

REPORT IN REFERENCE TO REQUEST FOR RELEASE OF BONDS ON CONTRACTS FOR SECTIONS I AND K.

Mr. Wenter, on behalf of the Joint Committee on Finance and Engineering, presented a report with reference to and accompanied by communication from Messrs. Christie & Lowe, contractors for Sections I and K, requesting the release of their bonds on contracts for said Sections, the same having been presented and referred to that committee at the meeting held February 15, 1899 (page 5472 of the Proceedings), the report being also accompanied by a report from the Attorney of the District to the committee and form of affidavit in reference to same, and recommending that the bond for Section I be released upon the filing of an affidavit in the form attached; and also recommending that the bond on Section K be not released, it being the judgment of the Committee that it should be held until the work on said section is completed.

Mr. Wenter, seconded by Mr. Smyth, moved that the report be adopted and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Jones, Mallette, Smyth and Wenter—six. Nays—none.

Upon this result, the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, March 23, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Your Joint Committee on Finance and Engineering have had under consideration the application of Messrs. Christie & Lowe for the release of their bonds on Sections I and K, and, after due investigation of the matter, would respectfully recommend to your Honorable Body that the bond for Section I be released upon an affidavit being filed with the Clerk of the District in the form hereto attached. Your committee would also respectfully recommend that the bond on Section K be not released, because the work on said section has not yet been completed, and in our judg-

ment it is advisable that said bond be held until said work is completed.

Respectfully submitted,

(Signed) Z. R. CARTER,
Chairman.

THOMAS A. SMYTH,

FRANK WENTER,

ALEX. J. JONES,

WM. BOLDENWECK.

Joint Committee on Finance and Engineering."

(Three enclosures.)

REPORT IN REFERENCE TO PURCHASE OF CERTAIN LANDS FROM C. R. I. & P. RY. CO.

On behalf of the Joint Committee on Finance and Engineering, Mr. Wenter presented and the Clerk read a report from that committee, setting forth that it has reached an agreement for the purchase of certain lands from the Chicago, Rock Island & Pacific Railway Co., and in accordance with such agreement a stipulation has been entered into between the District and the railway company, whereby it is agreed that a decree be entered in the case entitled Sanitary District of Chicago vs. Lina E. Barstow, C. R. I. & P. Ry. Co. et al., for the payment of $1,254.54 for the taking of the lands and premises as described, the report recommending that the Clerk of the District be authorized and directed to pay on the voucher of the attorney the said amount in full satisfaction of the said judgment and decree for the lands described.

Mr. Wenter, seconded by Mr. Smyth, moved that the report be adopted and the recommendation contained therein concurred in.

On roll call the vote stood: Yeas—Messrs. Boldenweck, Braden, Jones, Mallette, Smyth and Wenter—six. Nays—none

Upon this result the President deared the motion carried.

The following is

THE REPORT.

"CHICAGO, March 8, 1899.

the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—The Joint Committee on nance and Engineering has reached an reement for the purchase of certain lands necessary for the corporate purposes of the District, from the Chicago, Rock Island & Pacific Railway Company, and respectfully reports that in accordance with such agreement a stipulation has been entered into between the District and the railroad company whereby it is agreed that a decree be entered in the Circuit Court of Will County, in the case entitled Sanitary District of Chicago versus Lina E. Barstow, Chicago, Rock Island & Pacific Railway Company et al., being Case No. 16,821, in said County, for the sum of Twelve hundred Fifty-four and Fifty-four Hundredths ($1,254.54) dollars, to be paid said Chicago, Rock Island & Pacific Railway Company for the taking of the lands and premises hereinafter described.

Your Committee, therefore, recommends that the Clerk of the District be and he is hereby authorized and directed to pay, on the voucher of the Attorney, to said Chicago, Rock Island and Pacific Railway Company, in full payment and in full satisfaction of the said judgment and decree in said case, the sum of twelve hundred fifty-four and fifty-four hundredths ($1,254.54) dollars, for the following described land, to-wit:

The east one-third (⅓) of Lot five (5), Block eighteen (18) School Section Addion to Joliet.

All that part of the east one-half (½) of Lot two (2), Block twenty-five (25), School Section Addition to Joliet, lying north and west of a line fifty (50) feet distant from, measured at right angles, and parallel to, the center line of the right of way of the Chicago, Rock Island and Pacific Railway.

Also all that part of Lot three (3), Block twenty-five (25), School Section Addition to Joliet, lying north and west of a line fifty (50) feet distant from, measured at right angles, and parallel to, the center line of the right of way of the Chicago, Rock Island and Pacific Railway.

Also all that part of the east one-half (½) of Lot five (5), Block twenty-six (26), School Section Addition to Joliet, lying north and west of a line fifty (50) feet distant from, measured at right angles, and parallel to, the center line of the right of way of the Chicago, Rock Island and Pacific Railway.

Also all that part of Lot eight (8), Block twenty-six (26), School Section Addition to Joliet, lying north and west of a line fifty (50) feet distant from, measured at right angles, and par-

allel to, the center line of the right of way of the Chicago, Rock, Island and Pacific Railway.

Also all that part of Lot six (6), Block twenty-five (25), School Section Addition to Joliet, lying south and east of a line lying fifty (50) feet distant from, measured at right angles, and parallel to, the center line of the right of way of the Chicago, Rock Island and Pacific Railway.

The above described property is situate in the City of Joliet, County of Will and State of Illinois.

Respectfully submitted,

Z. R. CARTER,
Chairman,
THOMAS A. SMYTH,
FRANK WENTER,
J. P. MALLETTE,
J. C. BRADEN,
WM. BOLDENWECK,
ALEX. J. JONES,

Joint Committee on Finance and Engineering."

(Accompanied by plat.)

ADDITIONAL EMERGENCY FUND FOR LAW DEPARTMENT.

Mr. Mallette, Chairman of the Committee on Judiciary, presented an order directing the Clerk of the District to draw a warrant on the Treasurer, payable to the order of the Attorney, in the sum of $2,000, to be held as an emergency fund and subject to the check of the Attorney only, the order being also accompanied by a report from the Attorney to the committee in reference to the same, and the order and accompanying report were read.

Mr. Mallette, seconded by Mr. Jones, moved that the report of the Attorney be received and the order passed.

On roll-call, the vote stood: Yeas—Messrs. Boldenweck, Braden, Jones, Mallette, Smyth and Wenter—six. Nays—none.

Upon this result, the President declared the motion carried.

The following is

THE ORDER:

"*Ordered*, That the Clerk of the District be and he is hereby authorized and directed to draw a warrant on the Treasurer, payable to the order of the Attorney, in the sum of two thousand ($2,000.00) dollars, and deliver the same to said Attorney, to be held by him as an emergency fund, payable upon his check only, from time to time, as may seem advisable and the needs of the District may require, and to be charged to the account of Charles C. Gilbert, Attorney; any other order in conflict herewith being hereby repealed."

ADJOURNMENT.

On motion of Mr. Wenter, seconded by Mr. Braden, the Board then adjourned.

Joseph F. Haas
Clerk.

PROCEEDINGS

—OF THE—

BOARD OF TRUSTEES

—OF THE—

SANITARY DISTRICT OF CHICAGO.

MARCH 29, 1899.

OFFICIAL RECORD.

Published by authority of the Board of Trustees of the Sanitary District of Chicago.

REGULAR MEETING.

The four hundred and thirty-second regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Wednesday, March 29, 1899, at 2 o'clock P. M.

On roll-call Messrs. Boldenweck, Braden, Jones, Kelly, Mallette, Smyth and Wenter—seven members, were present.

President Boldenweck then called the Board to order.

MINUTES.

The minutes of the regular meeting held March 15, the adjourned session of the same held March 17, and of the regular meeting held March 22, 1899, were approved as printed, on motion of Mr. Kelly, seconded by Mr. Braden.

*VOUCHERS.

The Clerk presented the following vouchers:

PAY ROLLS.

Engineering Department (Chief Engineer's roll, March, 1899)	$ 841 67
Engineering Department (Division of Construction roll, March, 1899)	5,091 73

Engineering Department (Division of Draughting and Designing roll, March, 1899)	$ 1,771 50	
Engineering Department (Division of Records roll, March, 1899)	682 00	
		$ 8,886 90
Clerical Department (Clerk's roll, March, 1899)		1,033 33
Law Department (Attorney's roll, March, 1899)	$ 1,433 33	
Law Department (Joliet roll, March, 1899)	458 34	
		1,891 67
Treasury Department (Treasurer's roll, March, 1899)		166 66
General Account (General roll, March, 1899)	$ 210 00	
General Account (Trustees' roll, March, 1899)	2,333 33	
		2,543 33
Police Department (Marshal's roll, March, 1899)		2,470 72
Maintenance Account (Pumping Plant roll)		585 00
Total		$17,077 61

LAW DEPARTMENT.

John S. Runnells (services, General Counsel, March, 1899)		416 66

CONSTRUCTION ACCOUNT.

The Kelly-Atkinson Construction Company (C., M. & N., Kedzie Avenue Bridge)	228 25	
The Kelly-Atkinson Construction Company (C., M. & N., Kedzie Avenue Bridge)	325 00	
The Kelly-Atkinson Construction Company (C., M. & N., Kedzie Avenue Bridge)	500 00	
Illinois Central Railroad Company (Pan Handle Temporary Bridge)	6,000 00	
Scherzer Rolling Lift Bridge Company (Final payment bridge designs)	12,666 67	
		19,719 92
Grand total		$37,214 19

* To be paid by warrants, with interest coupons attached, drawn against the Tax Levy for 1899.

Mr. Kelly, seconded by Mr. Wenter moved that the vouchers as read and shown above be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Jones, Kelly, Mallette, Smyth and Wenter—seven. Nays—none.

Upon this result the President declared the motion carried.

REQUISITION.

The Clerk presented the following requisition:

No. 1097, Clerical Department (stationery) $24.00

Mr. Kelly, seconded by Mr. Mallette, moved that the requisition No. 1097, as read and shown above, be allowed.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Jones, Kelly, Mallette, Smyth and Wenter—seven. Nays—none.

Upon this result the President declared the motion carried.

WEEKLY REPORT ON EMPLOYES.

The Clerk presented a report, in accordance with the Rules, showing the number of persons in the employ of the District for the week ending March 25, 1899, which was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, March 29, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I beg leave to report herewith the number of persons inthe employ of the District for the week ending

March 25, 1899, as the same have been reported to me:

Engineering department	78
Maintenance account	8
Clerical department	5
Law department	8
Treasury department	1
Police department	29
Telephone operator	1
Total employes	130

Respectfully submitted,

(Signed) JOSEPH F. HAAS.
Clerk."

REDUCTION OF BOND ON CONTRACT FOR SUPERSTRUCTURE FOR C., M. & N. R. R. BRIDGE NEAR EAST END OF SECTION N.

On behalf of the Joint Committee on Finance and Engineering Mr. Wenter presented and the Clerk read a report from that committee with reference to and accompanied by a communication in regard to the release of the bond of the Toledo Bridge Company on their contract for the superstructure of the C. M. & N. R. R. bridge near east end of Section N, the same having been presented and referred to that Committee at the meeting held March 22, 1899 (page 5585 of the Proceedings) the report recommending that the surety on the original bond in the sum of $20,000 be released, (the contractors, however, to remain liable thereon,) upon the execution of a new bond in lieu of the original bond in the sum of $2,000 with surety thereon satisfactory to and approved by the Board.

Mr Wenter, seconded by Mr. Smyth, moved that the report be adopted and the recommendations contained therein concurred in.

On roll call the vote stood: Yeas—Messrs. Boldenweck, Braden, Jones, Kelly, Mallette, Smyth and Wenter—seven. Nays—none

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, March 28, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Your Joint Committee on Finance and Engineering, to whom was referred at the meeting of the Board of Trustees held March 22, 1899, (page 85 of the Proceedings) the communication from the Toledo Bridge Company, contractors for the erection of the superstructure of the Chicago, Madison & Northern Railroad Bridge on contract Section N of the Main Channel, requesting a reduction of their bond upon said contract, herewith makes report that the Committee has considered the request contained in said communication and is of the opinion that the request of said contractors, in view of the advanced stage of the work done under said contract, should be granted. The original bond accompanying the contract of said company, with the District, dated November 23, 1897, was executed in the penal sum of twenty thousand ($20,000.00) dollars. The Committee is of the opinion that said bond should be reduced and that a bond in the sum of two thousand ($2,000.00) dollars would be sufficient to protect the interests of the District from any liability arising or growing out of the granting of said contract to said Toledo Bridge Company.

Your Committee, therefore, recommends that the surety on the bond of said Toledo Bridge Company, on file with the contract in the office of the Clerk of the District, be released from further liability thereon (the contractors, however, to remain liable thereon), upon the execution of a new bond in lieu of said original bond in the sum of two thousand ($2,000.00) dollars with surety thereon satisfactory to and approved by the Board of Trustees of the District.

Respectfully submitted,

(Signed) FRANK WENTER,
THOMAS A. SMYTH,
J. P. MALLETTE,
JOS. C. BRANDEN,
THOMAS KELLY,
ALEX. J. JONES,
WM. BOLDENWECK,

Joint Committee on Finance and Engineering.

(Two enclosures.)

REPORT IN REFERENCE TO EXCHANGE OF CERTAIN LANDS WITH CHICAGO, SANTA FE & CALIFORNIA RY. CO.

Mr. Smyth, Chairman, presented, and the Clerk read, a report from the Committee on Engineering, setting forth that the Attorney of the District has submitted to the committee a form of deed of conveyance from the district to the C. S. F. & C. Ry. Co. whereby certain lands described in said deed are conveyed to said railway company in accordance with the terms

of the contract with said company, approved May 29, 1896, the report recommending that the President and Clerk be authorized and directed to execute said deed of conveyance when said railway company shall have executed on its part and delivered a deed of coveyance of certain lands agreed to be conveyed by it to the district under the terms of the aforesaid contract

Mr. Smyth, seconded by Mr. Jones, moved that the report be adopted and the recommendations contained therein concurred in.

On roll call the vote stood: Yeas—Messrs. Boldenweck, Braden, Jones, Kelly, Mallette, Smyth and Wenter—seven. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, March 28, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Your Committeee on Engineering desires herewith to make report that the Attorney of the District has submitted to the Committee a form of deed of conveyance from the District to the Chicago, Santa Fe & California Railway Company, whereby certain lands described in said deed are granted and conveyed to said railway company in accordance with the terms of a contract heretofore entered into between the District and the Chicago, Santa Fe & California Railway Company, approved by the Board of Trustees on the 29th day of May, 1896, (page 3360 of the Proceedings.)

The Committee desires to inform your Honorable Body that the lands proposed to be conveyed by said deed are given in exchange for lands and privileges of right of way, etc., which the District shall acquire from said railway company under a deed of conveyance from said railway company to the District and according to the terms of the contract above mentioned. That said deed of conveyance has been examined and approved by the Attorney and the Chief Engineer of the District.

The Committee, therefore, recommends that the President and Clerk of the District be authorized and directed to execute, on behalf of the District, the deed of conveyance of said lands from the District to said Chicago, Santa Fe and California Railway Company, when said railway company shall have executed on its part a deed of conveyence of certain lands agreed to be conveyed by it to the District under the terms of the aforesaid contract, and shall have delivered said deed to the District in proper form and properly executed.

Respectfully submitted,

(Signed) THOMAS A. SMYTH,
Chairman.

J. P. MALLETTE,
FRANK WENTER,
THOMAS KELLY,
ALEX. J. JONES,
WM. BOLDENWECK,
Committee on Engineering."

RECESS.

At 2:20 P. M., on motion of Mr. Jones, seconded by Mr. Wenter, the Board took a recess until 3:40 P. M.

REPORT ON ORDER IN REFERENCE TO EXAMINATION OF WATERS OF ILLINOIS & MICHIGAN CANAL AND DESPLAINES, ILLINOIS AND MISSISSIPPI RIVERS, AND AUTHORITY FOR EXPENDITURES FOR SAME.

On reconvening, Mr. Wenter, Chairman, presented and the Clerk read a report from the Joint Committee on Federal Relations and Health and Public Order in reference to the order for the examination of the waters of the Illinois & Michigan Canal and the Desplaines, Illinois and Mississippi rivers, presented and referred to that Committee at the meeting held December 7, 1898 (page 5308 of the Proceedings) and also in reference to a communication from Dr. A. R. Reynolds, Commissioner of Health of the City of Chicago, as director of the investigation provided for in said order, the report recommending that the order be adopted and that authority be granted to the Committee to incur such expenses as it may from time to time deem necessary for the carrying on of this investigation, the same to be thereafter reported to the Board.

Mr. Wenter, seconded by Mr. Jones, moved that the report be adopted and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Jones, Kelly, Mallette, Smyth and Wenter—seven. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT.

"CHICAGO, March 29th, 1899.

To The Honorable, The Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Your Joint Committee on Federal Relations and Health and Public Order, to whom was referred the order introduced in the Board December 7th, 1896, page 5308 of the proceedings, providing for proper investigation, analysis, etc., of the waters of the Illinois and Michigan canal, Desplaines, Illinois and Mississippi rivers, beg leave to report the same back that the order may be adopted.

Your Joint Committee further beg leave to report it has secured the services of Dr. Arthur R. Reynolds, Commissioner of Health of the City of Chicago, as director of the investigation provided for in said order, and recommends that this action of the committee be approved by your Honorable Body.

Your committee further beg leave to communicate herewith the communication of the director on the subject of this investigation, together with his suggestions and estimates as to certain expenditures; and we recommend that authority be granted by your Honorable Body to this Joint Committee on Federal Relations and Health and Public Order to incur such expenses as it may from time to time in its discretion deem necessary for the carrying on of this investigation; said expenditures to be thereafter reported to your Honorable Body.

Respectfully submitted,

FRANK WENTER,
Chairman.

THOMAS A. SMYTH,

J. P. MALLETTE,

THOMAS KELLY,

ALEX. J. JONES,

'nt Committee on Federal Relations and Health and Public Order."

Two enclosures.)

The following is

THE ORDER:

"WHEREAS, There exists in the minds many an idea, amounting in some ses to a conviction, that the discharge from the Channel being constructed by this District, when the same shall have been completed and the water caused to flow therein as provided by law, will be harmful to the health of the dwellers along the Illinois and Mississippi Rivers, by reason of its polluting the waters of those streams; and

WHEREAS, It is the belief of this Board, based upon the best information heretofore attainable, that these fears are groundless; and

WHEREAS, Fuller investigation by the highest scientific authorities will, in our belief, tend to remove the apprehensions of honest people and deprive the factions of tenable grounds for agreement; therefore be it, and it is hereby

Ordered, That the services of persons skilled in chemistry, microscopy and bacteriological analysis be secured, and that a thorough investigation of the waters found in the Illinois and Michigan Canal, the Desplaines and Illinois Rivers and of the Mississippi River, between the mouth of the Illinois River and Missouri River, for the purpose of determining the foreign substances and the character and number of bacteria carried in these waters. Investigations to be made during the winter season and during the hot weather of 1899, and similar investigations to be made after the opening of the Sanitary Channel.

The employment of experts for this work, and all matters relating to it, to be under the direction of the Joint Committee on Federal Relations and Health and Public Order."

REPORT ON BIDS FOR SUB AND SUPERSTRUCTURE OF TWO BRIDGES CROSSING THE DESPLAINES RIVER ON LINE OF JEFFERSON AND CASS STREETS IN THE CITY OF JOLIET, AND RETURN OF CERTAIN CHECKS.

Mr. Smyth, Chairman, presented, and the Clerk read, a report from the Committee on Engineering with reference to the bids "for the sub and superstructure of two bridges crossing the Desplaines river on line of Jefferson and Cass streets in the City of Joliet," presented and referred to that committee at the meeting held March 17, 1899 (page 5576 of the proceedings), the report being accompanied by tabulation of said bids, and recommending that the contract for the sub and superstructure of each of said bridges be let to the J. G. Wagner Company of Milwaukee, Wisconsin, at the prices set forth in the report, and that the

President and Clerk of the District be authorized and directed to execute said contracts, in form provided, when a bond shall have been executed by said J. G. Wagner Co. under conditions and stipulations as set forth in the report; the report further recommending that a clause be added to each of said contracts providing for the forfeiture of $50 per day by said contractors for failure to complete said contracts within the time specified, and also recommending that the Clerk of the District be directed to return the checks submitted on behalf of the other bidders when said contracts have been executed and approved bonds filed, except, however, the check of the Toledo Bridge Company, for one thousand dollars. which the committee recommends be held subject to the action of the Board, the report also setting forth in regard to a request of the Toledo Bridge Company that the committee is of the opinion the same cannot be legally granted, the opinion of the Attorney in reference to the matter being attached to the report.

Mr. Smyth, seconded by Mr. Mallette, moved that the report be adopted and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Kelly, Mallette, Smyth and Wenter--six. Nays—none. Excused and not voting--Mr. Jones—one.

Upon this result the President declared the motion carried.

In the same connection the President presented a communication from the Toledo Bridge Company asking that the check of $1,000 deposited by the said company with their bid for the construction of Cass Street Bridge be returned to said company and in consideration of the return of said check the Toledo Bridge Company thereby waives and releases all claims of any character whatsoever on account of the action of the Board in reference to their bids heretofore submitted for the construction of the Cass and Jefferson Street Bridges.

Mr. Kelly, seconded by Mr. Jones, moved that the request of the Toledo Bridge Company be granted and that the check be returned in consideration of the terms, conditions and waiver of the request.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Jones, Kelly, Mallette and Wenter—six. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT

CHICAGO, March 29, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

Gentlemen:—Your Committee on Engineering having had under consideration the matter of bids for the substructure superstructure and auxiliary work for the Cass Street Bridge across the Desplaines River in the City of Joliet, Ill., and for the substructure, superstructure and auxiliary work for the Jefferson Street Bridge across the Desplaines River in the City of Joliet, Ill., heretofore opened and tabulated at the meeting of the Board held March 17, 1899, and which were referred to your Committee on that date, herewith makes report that it has carefully examined and considered each of the several bids submitted upon the work mentioned as heretofore advertised and tabulated, and finds that the lowest bidder upon each section of the work as above mentioned is as follows, respectively:

For the substructure, superstructure and auxiliary work for the Cass Street Bridge across the Desplaines River in the City of Joliet, Ill., the lowest bidder is the J. G. Wagner Company, Milwaukee, Wis. The lowest bid received upon this section of the work was submitted by the Toledo Bridge Company of Toledo, Ohio. Subsequent to submitting their bid they informed your Committee that they would not accept the contract for the work as specified at the figure designated in their bid. The next lowest responsible bidder is the one hereinabove mentioned.

For substructure, superstructure and auxiliary work for the Jefferson Street Bridge across the Desplaines River in the City of Joliet, Ill., the lowest bidder is the J. G. Wagner Company of Milwaukee, Wis.

Your committee reports that each of said lowest bidders is, in its opinion, responsible, and therefore recommends that the contracts for the execution of said work as hereinabove mentioned, in the manner designated in the advertisement, plans and specifications heretofore prepared by the Engineering Department, be let to the parties designated in

the order hereinafter mentioned and at the prices hereinafter stated, to-wit:

The contract for the substructure, superstructure and auxiliary work for the Cass Street Bridge across the Desplaines River in the City of Joliet, Ill., to the J. G. Wagner Company, of Milwaukee, Wis., at the following prices:

For the superstructure, twenty-nine thousand nine hundred and seventy-six ($29,976.00) dollars lump sum.

For the substructure, the unit prices named in their bid.

The contract for the substructure, superstructure and auxiliary work for the Jefferson Street Bridge across the Desplaines river in the City of Joliet, Ill., to the J. G. Wagner Co. of Milwaukee, Wis., at the following price:

For the superstructure, twenty-three thousand one hundred and sixty ($23,160) dollars lump sum.

For substructure, unit prices as per bid.

The committee therefore recommends that the President and the Clerk of the District be authorized and directed to execute on behalf of the district said contracts respectively, in form as provided when a bond shall have been executed by the J. G. Wagner Co. on each of said contracts as follows:

Upon the contract first above mentioned in the sum of five thousand ($5,000) dollars.

Upon the contract last above mentioned in the sum of eight thousand ($8,000) dollars.

Each of said bonds to be executed in proper form with a surety company acceptable to the Finance Committee and approved by this Board.

The Committee also recommends that a clause be added in each of the contracts whereby the contractors agree to forfeit as liquidated damages for the prompt execution of the provisions of the contracts within the time specified therein as follows:

Upon the contract first above mentioned fifty ($50) dollars per day for each day beyond the time specified for the completion to-wit.:

Substructure of the Cass Street Bridge on or before July 1st, 1899, and superstructure on or before September 1st, 1899.

Upon the contract last above mentioned fifty ($50) dollars per day for each day beyond the time specified for completion, to-wit:

Substructure Jefferson Street Bridge, August 1st, 1899, and substructure, October 1st, 1899.

In conclusion the Committee recommends that the Clerk of the District be directed to return the checks submitted on behalf of the other bidders, excepting however the check of the Toledo Bridge Company for one thousand ($1,000) dollars, which the Committee recommends be held subject to the action of your Honorable Body. Provided, however, that the checks of each of said bidders be held until the contracts for the work herein above mentioned shall have been executed and a bond as aforesaid be approved by this Board.

In regard to the communications of the Toledo Bridge Company we are of the opinion that the request therein contained cannot be legally granted and herewith attach the opinion of the Attorney upon this matter.

(Signed) THOMAS A. SMYTH,
Chairman.

J. P. MALLETTE,
J. C. BRADEN,
FRANK WENTER,
THOMAS KELLY,
WM. BOLDENWECK.

(Three enclosures).

REPORT IN REFERENCE TO CLAIM OF COSMOPOLITAN ELECTRIC COMPANY FOR DAMAGES.

Mr. Smyth, Chairman, presented, and the Clerk read, a report from the Committee on Engineering with reference to, and accompanied by, a communication and bill from the Cosmopolitan Electric Company for damages alleged to have been caused their building and plant by the construction of a dock beside their property on the Chicago River, the report being accompanied by a report of the Chief Engineer to the committee in reference to the same and recommending that the President and Clerk be authorized and directed to make payment by warrant upon the voucher of the Chief Engineer for the sum of $433.10 when the said Cosmopolitan Electric Company shall have filed with the Clerk a receipt therefor and in full of all damages of whatsoever kind or nature arising out of the construction of said dock.

Mr. Smyth, seconded by Mr. Braden,

moved that the report be adopted and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Jones, Kelly, Smyth and Wenter—six. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT.

CHICAGO, March 27, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

Gentlemen:—Your Committee on Engineering desires herewith to make report that the Committee has received a communication directed to the Board of Trustees of the District from the Cosmopolitan Electric Company concerning a bill of expenses alleged to have been paid by said Company on account of damages caused to their building and plant by the construction of a dock by the District alongside of their property on the Chicago River. The Committee desires to say that the Chief Engineer of the District has investigated the claim submitted by said Company for damages, as aforesaid, and has reported to the Committee that, after personally examining the conditions growing out of the construction of the dock in the front of the plant of the Cosmopolitan Electric Company, he has ascertained that a settling of the rear walls and boilers of said building has occurred, which resulted from the failure to back fill. The bill submitted by said company, which, together with the communication of its Secretary is hereto attached, includes items for labor, repairs, bracing, boilers, braces for building and repairing piping. The amount aggregates four hundred thirty-three and ten hundredths ($433.10) dollars. In view of the circumstances in the matter the Committee is of the opinion that the account rendered to the district should be paid and, therefore, recommends as follows:

That the President and Clerk of the district be authorized and directed to make payment by warrant of the district duly executed upon the voucher of the Chief Engineer for the sum of four hundred thirty-three and ten hundredths ($433.10) dollars, when the said Cosmopolitan Electric Company shall have filed with the Clerk of the District a receipt therefor, and also in full of all damages of whatsoever kind or nature arising out of the construction of said dock, as aforesaid.

Respectfully submitted,

(Signed) THOMAS A. SMYTH,
Chairman.

J. P. MALLETTE,
JOS. C. BRADEN,
THOMAS KELLY,
FRANK WENTER,
WM. BOLDENWECK,

Committee on Engineering."

(Three enclosures.)

ADJOURNMENT.

On motion of Mr. Smyth, seconded by Mr. Wenter, the Board then adjourned.

Joseph F. Haas
Clerk.

PROCEEDINGS

—OF THE—

BOARD OF TRUSTEES

—OF THE—

SANITARY DISTRICT OF CHICAGO.

APRIL 5. 1899.

OFFICIAL RECORD.

Published by authority of the Board of Trustees of the Sanitary District of Chicago.

REGULAR MEETING.

The four hundred and thirty-third regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Wednesday, April 5, 1899, at 2 o'clock P. M.

On roll-call Messrs. Boldenweck, Braden, Carter, Eckart, Jones, Kelly, Mallette and Smyth—eight members, were present.

President Boldenweck then called the Board to order.

MINUTES.

The minutes of the special meeting held March 23, and of the regular meeting, held March 29, 1899, were approved as printed, on motion of Mr. Kelly, seconded by Mr. Braden.

VOUCHERS.

The Clerk presented the following vouchers:

LAW DEPARTMENT.

ephen Dowse (livery)	$ 1 00
he Chicago Towel Supply Co. (toweling, Feb. '99)	1 50
muel L. Hanks (ice, March, 1899)	2 50
'hite Rock Mineral Spring Co. (water)	3 75
nes D. Cockcroft (law book)	6 00
est Publishing Co., (law book)	16 00

Maud V. Schaffner, (stenographer)	$ 9 50	
Murray J. Brady (stenographer)	13 50	
Weasmer & Norden (stenographers)	26 50	
Owen W. Curtis (coal)	6 25	
Ernest J. Magerstadt, Sheriff (fees)	36 80	
Frank Vander Bogart, Clerk (fees)	44 30	
John S. White (witness fees)	9 00	
Robert Sherman (witness fees)	15 00	
Frank Sprague (witness fees)	40 00	
Daniel Sullivan (witness fees)	50 00	
Thomas Downs (witness fees)	50 00	
John P. McGoorty (legal services)	350 00	
William Prentiss (legal services)	550 00	
J. W. Nadelhoffer (expense)	69 75	
Chas. C. Gilbert (expense)	264 20	
		$ 1,565 55

CONSTRUCTION ACCOUNT.

Heldmaier & Neu (Section 17, April 1, '99)	$ 8,061 81	
Gahan & Byrne (Section 18. April 1, '99)	16,912 88	
Halvorson, Richards & Co. (Section E, April 1, '99)	6,611 16	
Lydon & Drews Co. (By-Pass, April 1, '99)	5,107 77	
Griffiths & McDermott Construction Co. (Bear Trap Dam)	1,680 38	
McArthur Bros. Co. and Winston & Co. (Summit-Lyons Road Bridge)	3,130 05	
Heldmaier & Neu (Romeo Highway Bridge)	1,994 79	
Geo. M. Huss (Belt Railway Bridge)	413 70	
		$43,912 54
Grand total		$45,478 09

*To be paid by warrants with interest coupons attached, drawn against the Tax Levy for 1899 as follows:

F. M. Blount (sundry persons less than $50.00)	$ 231 60	
Construction Account, to Contractors	43,912 54	
All others, direct to creditors	1,333 95	
		$45,478 09

Mr. Carter, seconded by Mr. Jones, moved that the vouchers as read and shown above be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette and Smyth—eight. Nays—none.

Upon this result the President declared the motion carried.

WEEKLY REPORT ON EMPLOYES.

The Clerk presented a report in accordance with the rules, showing the number of persons in the employ of the District for the week ending April 1, 1899, which was read and by unanimous consent was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, April 5, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the week ending April 1, 1899, as the same have been reported to me:

Engineering department	78
Maintenance account	8
Clerical department	5
Law department	8
Treasury department	1

Police department	29
Telephone operator	1
Total employes	130

Respectfully submitted,

(Signed) JOSEPH F. HAAS,
Clerk."

REPORT IN REFERENCE TO COMPLETION OF CONTRACTS FOR SUPERSTRUCTURE OF LEMONT AND WILLOW SPRINGS HIGHWAY BRIDGES CROSSING MAIN CHANNEL.

Mr. Smyth presented, and the Clerk read, a report from the Committee on Engineering in reference to, and accompanied by, the final certificates of the Chief Engineer as to the completion of the contracts with C. L. Strobel for the superstructure of the Lemont Highway Bridge crossing the main channel on section eight, and the superstructure of the Willow Springs Highway Bridge crossing the main channel on section one; the report recommending that the President and the Clerk be authorized and directed to make final payment to the said contractor in the sum of fifty-seven hundred and forty-six ($5,746.00) dollars upon each of the above contracts, under conditions and stipulations as set forth in the report.

Mr. Smyth, seconded by Mr. Kelly, moved that the report be adopted and the recommendations therein contained concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Kelly, Mallette, and Smyth—seven. Nays—Mr. Jones.—one.

Upon this result the President declared the motion carried.

Before voting, Mr. Jones made the following explanation, which he desired to have recorded in the proceedings:

"I vote no because it is not a final estimate within the meaning of the contract, the work not being completed and, in such case, the final payment before it is due is a violation of the contract.

"CHICAGO, April 3, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Your Committee on Engineering herewith present the final certificates of the Chief Engineer of the District in regard to the contracts of C. L. Strobel, dated August 24, 1898, for the superstructures of the Lemont Highway bridge across the main channel, on Contract Section Eight, and the bridge across the main channel at Willow Springs, and on Contract Section One, and report as follows:

That the committee has examined said certificates and fully considered the subject matter of the completion of the work done under said contracts, respectively, and recommends, that the President and Clerk of the district be authorized and directed to make final payment to said contractor in the sum of fifty-seven hundred and forty-six dollars ($5,746.00), upon each portion of the work above described, aggregating in all, the sum of eleven thousand four hundred and ninety-two dollars ($11,492.00), the sum found to be due the said contractor in the aforesaid final certificates hereto attached, upon the execution of final receipts in favor of the district and made by the said contractor in full, and releasing the district from any and all claims and demands of every kind or nature whatsoever upon said contract.

Respectfully submitted,

(Signed) THOMAS A. SMYTH,
Chairman.

J. P. MALLETTE,
J. C. BRADEN,
Z. R. CARTER,
THOMAS KELLY,
WM. BOLDENWECK,
Committee on Engineering.

(2 enclosures.)

The following are

THE FINAL CERTIFICATES OF THE CHIEF ENGINEER.

"CHICAGO, March 25, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN:—I hereby certify that C. L. Strobel has completed all of the work covered by his contract dated August 24, 1898, for the superstructure of the Lemont Highway Bridge across the Main Channel on Contract Section 8, to the full satisfaction of the Chief Engineer and in accordance with the terms of said contract with this District, except that the painting has not been done and which is postponed until the warm weather sets in.

This certificate is a given subject to any unaccrued or unmatured obligation imposed by the contract.

The following is a statement covering the amount of work done:

Contract price for superstructure complete.....		$14,990 00
Amount reserved until structure is painted.....	$ 250 00	
Amount paid on previous estimate.....	$8,994 00	9,244 00
Amount due and unpaid		$5,746 00

Respectfully submitted,

(Signed) ISHAM RANDOLPH,

Chief Engineer.

"CHICAGO, March 25, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I hereby certify that C. L. Strobel has completed all of the work covered by his contract dated August 24th, 1898, for the superstructure of the bridge across the Main Channel at Willow Springs and on Contract Section 1, to the full satisfaction of the Chief Engineer and in accordance with the terms of the said contract with this District, except that the painting has not been done and which is postponed until the warm weather sets in.

This certificate is given subject to any unaccrued or unmatured obligations imposed by the contract.

The following is a statement covering the amount of work done:

Contract price for superstructure complete.....		$14,990 00
Amount reserved until structure is painted.....	$ 250 00	
Amount paid on previous estimate....	8,994 00	
		9,244 00
Amount due and unpaid.....		$ 5,746 00

Respectfully submitted,

(Signed) ISHAM RANDOLPH,

Chief Engineer."

REPORT IN REFERENCE TO POSTPONEMENT OF OPENING BIDS FOR "SUB AND SUPERSTRUCTURES OF A RAILROAD BRIBGE CROSSING THE CHICAGO RIVER NEAR TAYLOR STREET, AND BRIDGE FOR TAYLOR STREET, IN THE CITY OF CHICAGO."

On behalf of the Committee on Engineering, Mr. Mallette presented, and the Clerk read, a report from that committee in reference to the postponment of the opening of the bids which may be received on "sub and superstructures of a railroad bridge crossing the Chicago river near Taylor street, and also a bridge for Taylor street across the same river in the City of Chicago," the report recommending that bids received upon said work be not opened until the meeting of the Board of Trustees to be held on the 26th of April next, and that the letting of the contract for the work be postponed until the further order of the board; the report also recommending that the Clerk be directed to publish notice of such postponement in the form attached to the report.

At the same time a minority report dissenting from the views of the majority report and signed by Alex. J. Jones was also presented and read.

Mr. Mallette, seconded by Mr. Kelly, moved that the majority report be adopted and the recommendations contoined therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Carter, Eckhart, Kelly and Mallette—five. Nays—Messrs. Jones and Smyth—two. Excused and not voting—Mr. Braden—one.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, April 3, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN:—Your Committee on Engineering desires to make report that the Committee has deemed it advisable to postpone the business of awarding bids upon the advertisement of February 8, 1899, for the erection of the substructure and superstructure of a railroad bridge crossing the Chicago River near Taylor street; and also a bridge for Taylor street across the same river, in the City of Chicago. It advises that, by reason of unforseen contingencies, it has been made necessary to postpone the letting of the contracts for the work so advertised until at least two weeks from date originally designated.

It therefore recommends that the bids received upon said work be not opened until the meeting of the Board of Trustees, to be held on the 26th inst., and that the letting of the contract for the

work hereinbefore mentioned be postponed until the further order of the board. The committee also recommends that the Clerk of the district be directed to publish a notice of such postponement in the form hereto attached and in accordance with the usual custom.

Respectfully submitted,

(Signed) J. P. MALLETTE,
B. A. ECKHART,
Z. R. CARTER,
THOMAS KELLY,
WM. BOLDENWECK,
Committee on Engineering."

The following is

THE MINORITY REPORT:

"The undersigned minority dissents from the proposed action of the Committee on Engineering in extending the receiving of bids, on the ground that such extension is in effect and in law a re-advertisement for bids and is, therefore, illegal and unlawful unless said extension or re-advertisement be for a period of 60 days. Under the law, all contracts of the Sanitary District for public work in excess of $500 00 can only be awarded on sixty (60) days public advertisement for competitive proposals for said work. This is a simple proposition to advertise by 21 days notice for bids on which contracts can only be awarded after 60 days notice and advertisement, and, as such, is illegal, a direct violation of law, and the minority contends that no contract awarded on such advertisement will be a valid or enforceable obligation.

Therefore, such action can only result in litigation and delay and further retard the day of opening the Main Drainage Channel to its usefulness.

(Signed) ALEX. J. JONES."

ADJOURNMENT.

On motion of Mr. Carter, seconded by Mr. Eckhart, the Board then adjourned.

Joseph F. Haas
Clerk.

PROCEEDINGS

—OF THE—

BOARD OF TRUSTEES

—OF THE—

SANITARY DISTRICT OF CHICAGO.

APRIL 12, 1899.

OFFICIAL RECORD.

Published by authority of the Board of Trustees of the Sanitary District of Chicago.

REGULAR MEETING.

The four hundred and thirty-fourth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Wednesday, April 12, 1899, at 2 o'clock P. M.

On roll-call Messrs. Boldenweck, Carter, Jones, Kelly, Mallette and Smyth—six members, were present, Messrs. Braden and Eckhart arriving subsequently.

President Boldenweck then called the Board to order.

MINUTES.

The minutes of the regular meeting held April 5, 1899, were approved as printed on motion of Mr. Kelly, seconded by Mr. Mallette.

*VOUCHERS.

The Clerk presented the following vouchers:

ENGINEERING DEPARTMENT.

Wm. Feldmann (binding)	$ 3 00
Keuffel & Esser Company (drafting supplies)	14 45
John F. Higgins (printing)	13 00
Chas. G. Burroughs (printing)	6 50

Dennison Manufacturing Company (shipping tags)	$ 8 75	
J. A. Anderson (repairing camera)	4 50	
Burke & James (photo supplies)	13 76	
The Chicago Towel Supply Company (toweling, March, 1899)	7 90	
Samuel L. Hanks (ice, March, 1899)	11 50	
White Rock Mineral Spring Company (water)	18 75	
Ignatz Novak & Co. (coal)	13 00	
Norton & Co. (coal)	13 15	
Owen W. Curtis (coal)	15 25	
J. H. Alexander (rent, Lockport, March, 1899)	17 00	
Wygant & Ayers (rent, Corwith, January and February, 1899)	25 00	
W. H. Salisbury & Co. (rubber boots)	4 00	
P. A. Pope (gauge reading, December, 1898)	10 00	
P. A. Pope (gauge reading, January, 1899)	10 00	
P. A. Pope (gauge reading, February, 1899)	8 33	
Hans Isak (gauge reading, March, 1899)	5 00	
Heggie Bros. (lock repairs)	22 80	
G. M. Wisner (expense)	47 73	
Pearson Bros. (blue prints)	35 31	
H. B. Alexander (traveling and expense)	33 23	
W. T. Keating (traveling and expense)	64 34	
Isham Randolph (traveling and expense)	114 46	
Wm. Trinkaus (traveling and expense)	76 62	
Eugene Dietzgen Company (blue prints)	55 00	
W. M. Hughes (services Consulting Engineer)	136 85	
W. M. Hughes (services Belt Railway Company's bridge)	600 00	
Pittsburgh Testing Laboratory, Lt'd, (inspecting iron and steel)	269 56	
		$ 1,678 74

CLERICAL DEPARTMENT.

The Chicago Towel Supply Company (toweling, March, 1899)	$ 2 50	
Samuel L. Hanks (ice, March, 1899)	2 50	
The Twentieth Century Manufacturing Company (mucilage)	2 50	
White Rock Mineral Spring Company (water)	3 75	
A. P. Little (typewriter paper)	14 85	
Thomas S. Bell (petty expenses)	9 99	
		$ 36 09

TREASURY DEPARTMENT.

Cameron, Amberg & Co. (bond register)		$ 15 25

GENERAL ACCOUNT.

H. Schultz & Co. (file boxes)	$ 2 25	
Security Deposit Company (rent offices, April, 1899)	483 33	
		$ 485 58

POLICE DEPARTMENT.

W. L. Felkner (expense)	$ 2 60	
Mrs. A. Hartwig (laundry)	4 00	
Chas. Werner (livery)	7 50	
		$ 14 10

MAINTENANCE ACCOUNT.

Illinois Oil Station (oil)	$ 20 85	
Crew Levick Company (oil)	27 00	
Dearborn Drug and Chemical Works (boiler compound)	38 78	
Heggie Bros. (boiler repairs)	30 10	
H. B. Alexander (expense)	31 83	
Weaver Coal Company (coal)	365 97	
Weaver Coal Company (coal)	385 31	
		$ 899 84

CONSTRUCTION ACCOUNT.

Chicago Junction Ry. Co. (Section O—Pan Handle Bridge)	$ 3,772 85	
Chicago T. T. R. R. Co. (Section E Bridge)	97 03	
Chicago T. T. R. R. Co. (Section E Bridge)	33 57	
Chicago T. T. R. R. Co. (Section O—Pan Handle Bridge)	100 00	
Marsh & Bingham Company (Section 18—Rock Island Bridge)	912 56	
Home Lumber Company (Section K—Belt Railway Bridge)	1,072 07	
Heidmaier & Neu (Romeo Bridge)	16 09	
Continental Bolt & Iron Works (Rock Island Bridge)	77 35	
Christie & Lowe (Bear Trap Dam)	135 05	
P. T. Dunn & Co. (Lockport Road)	14 00	
		$ 6,230 57

CAPITALIZATION AND MAINTENANCE OF BRIDGES.

Chicago, Santa Fe and California Ry. Co. (Section G Bridge)	$33,207 60
Total	$42,567 77

*To be paid by warrants, with interest coupons attached, drawn against the Tax Levy for 1899, as follows:

F. M. Blount, Treasurer (sundry persons, less than $50.00)	$ 578 16	
Construction Account (to contractors)	39,438 17	
All others, direct to creditors	2,551 44	
		$42,567 77

Mr. Carter, seconded by Mr. Jones, moved that the vouchers as read and shown above be approved and ordered paid.

On roll call the vote stood: Yeas—Messrs. Boldenweck Braden, Carter, Jones, Kelly, Mallette and Smyth—Seven. Nays—None.

Upon this result the President declared the motion carried.

WEEKLY REPORT ON EMPLOYES.

The Clerk presented a report in accordance with the rules, showing the number of persons in the employ of the District for the week ending April 8, 1899, which was read and by unanimous consent was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, April 12, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the week ending April 8, 1899, as the same have been reported to me:

Engineering department	77
Maintenance account	8
Clerical department	5
Law department	8
Treasury department	1
Police department	29
Telephone operator	1
Total employes	129

Respectfully submitted,

(Signed) THOS. S. BELL,
Acting Clerk."

MONTHLY REPORT FROM TREASURY DEPARTMENT.

The Clerk presented a report from the Treasury Department for the month of rch, 1899, which was read, and, by unanimous consent, was ordered printed 1 placed on file.

The following is

THE REPORT:

Receipts.

ance on hand at date of last report		$ 58,200 86
n J. F. Haas, Clerk, Land Account	$ 30 00	
m Collector Hyde Park, Sanitary District Tax Account	10,000 00	
n Collector North Town, Sanitary District Tax Account	10,000 00	

From Collector Jefferson, Sanitary District Tax Account	$ 10,241 88	
From Collector South Town, Sanitary District Tax Account	100,000 00	
From Collector Town of Lake, Sanitary District Tax Account	84,539 12	
From Collector West Town, Sanitary District Tax Account	35,000 00	
From Chicago National Bank, Interest Account	52 08	
Total cash received for month		$ 249,863 08
		$ 308,063 94

Disbursements.

Clerical Department	$ 21 50	
Engineering Department	378 15	
Law Department	99 19	
General Account	323 63	
Police Department	48 91	
Maintenance Account	89 57	
Total cash disbursed		$ 960 95
Balance this date in banks as per schedule endorsed hereon		307,102 99
		$ 308,063 94

Schedule.

Chicago National Bank	$ 281,164 21
National Bank of Illinois	25,938 78
Total	$ 307,102 99

CHICAGO, April 5, 1899.

(Signed) F. M. BLOUNT, *Treasurer.*
By S. P. BLOUNT, *Asst. Treasurer.*

MONTHLY REPORT FROM LAW DEPARTMENT.

The Clerk presented a report from the Law Department for the month of March, 1899, which was read, and by unanimous consent was ordered printed and placed on file.

The following is

THE REPORT.

"CHICAGO, April 11 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I herewith submit the report of the Law Department for the month of March, 1899:

The following is a complete statement of the expenses of the Law Department for the month of March, 1899:

SALARIES.

Attorneys	$ 2,733 35	
Office force	800 00	
		$ 3,533 35

GENERAL EXPENSES.

Right of way (salaries)	250 00	
Expense account	18 44	
Legal services	2,335 22	
Books, printing and stationery	24 00	
		$ 2,627 66

LAND ACCOUNT.

Abstracts—Will County	$ 588 50
Total expenses	$ 6,749 51

Preparation of the deeds for the exchange of land near Le Moyne with the Atchison, Topeka and Santa Fe Railway Company, received the attention of the Department, and contracts have also been drawn up providing for the construction of the bridges across the Desplaines River at Cass and Jefferson Streets in Joliet, by the J. G. Wagner Company of Milwaukee.

The case of the Sanitary District of Chicago versus Robert Law and the Delaware, Lackawanna & Western Railway Company, et al., General Number 16,964, in the County Court of Cook County, has been dismissed on stipulation, without cost to either party.

NEW LITIGATION.

The following cases have been begun during the month:

Archibald McArthur and Arthur F. McArthur, surviving members of the firm of McArthur Brothers, composed of James McArthur, deceased, and the said Archibald McArthur and Arthur F. McArthur, versus the Sanitary District of Chicago, General Number 197,437, in the

Superior Court of Cook County. This is an assumpsit suit for seventy thousand ($70,000) dollars for extras.

Sanitary District of Chicago versus Chicago, San Francisco & California Railroad Company and the Village of Lemont, in the County Court of Cook County. This is a condemnation suit to acquire certain property necessary for the construction of a subway under said railroad company's tracks at Stevens Street in Lemont.

An ordinance has been prepared by this Department providing for a subway at Stephens Street in the Village of Lemont.

An ordinance has been prepared by this Department for the payment of interest upon all warrants of redemption drawn upon the tax levy of 1899.

Final payment has been made to McMahon & Montgomery Company on Section "O," and a release of claims was prepared by this Department and executed by said contractors.

An examination of the records of the Secretary of State at Springfield, and of the records of the Treasury and War Departments at Washington, in reference to the title to certain property adjacent to the Illinois and Michigan Canal has been made by this Department.

An opinion has been prepared by the Attorney in reference to the alteration of the bid of the Toledo Bridge Company for the bridges at Jefferson and Cass Streets in Joliet.

The preparation of the Abstract of Record and Brief in the case of Ray versus the Sanitary District of Chicago, being an appeal from the Circuit Court of Will County to the Appellate Court of the First District of Illinois.

The coming month will be occupied in preparing for and attending to the various litigation of the District, preparation of contracts and the routine work of the Department.

Respectfully submitted,

Signed.) CHARLES C. GILBERT,

Attorney."

PPROVAL OF BONDS ON CONTRACTS FOR SUB AND SUPERSTRUCTURES OF TWO BRIDGES CROSSING THE DESPLAINES RIVER ON LINE OF JEFFERSON AND CASS STREETS IN CITY OF JOLIET.

Mr. Carter, Chairman, presented, and the Clerk read, a report from the Committee on Finance, in regard to the acceptance of the bonds to be executed by the J. G. Wagner Company on contracts for the construction of the sub and superstructures of two bridges crossing the Desplaines River on line of Jefferson and Cass Streets, in the City of Joliet, the report setting forth that said bonds are in the opinion of the Committee in proper form and the surety thereon acceptable and satisfactory, and recommending that the same be approved by the Board.

Mr. Carter, seconded by Mr. Kelly, moved that the report be adopted, and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Jones, Kelly, Mallette and Smyth—seven. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, April 11, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN — Your Committee on Finance, to whom was referred, at a meeting of this Board on March 29, 1899, the acceptance of the bonds to be executed by the J. G. Wagner Company to secure the faithful performance of the contracts awarded said company for the construction of the Cass and Jefferson streets bridges at Joliet, Illinois, herewith makes report:

That said bonds have been duly executed with the City Trust, Safe Deposit& Surety Company of Philadelphia as surety thereon: That said bonds are, in the opinion of the committee, in proper form and the surety thereon is acceptable and satisfactory to your committee.

Your committee therefore recommends that the said bonds be approved by the said Board of Trustees.

Respectfully submitteed,

(Signed) Z. R. CARTER,

Chairman.

THOMAS KELLY,

ALEX. J. JONES,

Committee on Finance."

The following are

THE CONTRACTS:

"SANITARY DISTRICT OF CHICAGO.

Contract and specifications for the substructure, superstructure and auxiliary work for the Jefferson Street Bridge across the Desplaines River, in the City of Joliet, Illinois.

THIS AGREEMENT, Made and entered into this sixth day of April, A. D. 1899, by and between the Sanitary District of Chicago, of the first part, and The J. G. Wagner Company of the City of Milwaukee, in the State of Wisconsin, of the second part.

A—

WITNESSETH: That the said party of the second part has covenanted, contracted and agreed, and by these presents does covenant, contract and agree with the said party of the first part, for the consideration of the payments to be made as provided for herein, to the said party of the second part by the said party of the first part, and under a penalty expressed in a bond bearing even date herewith, at his own proper cost and expense, to do all the work, and to furnish all material, tools, labor and all appliances and appurtenances called for by this agreement, in the manner and under the conditions hereinafter stipulated, that are necessary to the complete doing of the work known and distinguished by the specifications herein contained, and the plans accompanying them, as the construction of the substructure and superstructure for the Jefferson Street Bridge across the Desplaines River.

B—

It is further covenanted, contracted and agreed that the work shall be executed under the direction and supervision of the Chief Engineer of the Sanitary District of Chicago, and his properly authorized agents, by whose measurements and calculations the quantities and amounts of the several kinds of work performed under this contract shall be determined, and on whose inspection all work shall be accepted or condemned. The said Chief Engineer and his properly authorized agents shall have full power to reject or condemn all materials furnished or work performed under this contract which do not fully conform to its spirit and to the terms and conditions herein expressed; and the Chief Engineer shall decide every question which may arise between the parties hereto relative to the execution thereof, and his decision shall be final and binding upon both parties.

C—

Wherever the words "Sanitary District" are used in this contract they shall be understood to mean the Sanitary District of Chicago, as represented by the Board of Trustees of the Sanitary District or their duly authorized and accredited agents.

Wherever the words "Chief Engineer" or "Engineer" are used herein they shall be understood to mean the Chief Engineer of the Sanitary District of Chicago, or his properly authorized agents, limited by the particular duties intrusted to them.

Wherever the word "Contractor" is used herein it shall be understood to mean the person or persons, or copartnership or corporation entering into the contract as party of the second part.

The following ordinance, passed by the Board of Trustees of the Sanitary District of Chicago, June 23, 1897, is hereby made a part of this contract, and the party of the second part agrees to comply with its provisions, and in case of violation thereof to be subject to the penalties therein authorized to be imposed:

"*Be it ordained by the Board of Trustees of the Sanitary District of Chicago:*

"SECTION 1. That in the preparation of all future specifications for contracts for the construction of the Main Channel and auxiliary works, the Engineering Department shall provide that such contracts shall be executed in conformance with the law constituting eight (8) hours a legal day's work in all contracts under the Sanitary District of Chicago, and that, in the employment of labor, contractors shall be required and specifically agree to give preference to union labor.

"SECTION 2. That all contracts hereafter executed for the works of the Sanitary District of Chicago shall contain provisions constituting eight (8) hours a legal day's work, and forbidding the employment of any employe or employes for a longer period than eight (8) hours in any twenty-four (24) hours and that said contract shall vest specific authority in the Police Department of the Sanitary District of Chicago to exercise supervision for the enforcement of this provision and shall provide that the Board of Trustees

of the Sanitary District of Chicago shall be empowered in all cases of violation of said eight (8) hour law to deduct and retain from any money accruing to said contractors a sum as liquidate damages at the rate of five ($5.00) dollars per hour for each employe who shall be required to work in excess of eight (8) hours per day by any contractor on said Canal."

SANITARY DISTRICT OF CHICAGO.

Specifications for Jefferson Street Bridge, in the City of Joliet, Illinois.

GENERAL.

The work hereinafter specified shall consist in furnishing, delivering and building in place all temporary work required, the piers, the abutment, the retaining walls and the new superstructure, as well as all necessary work on the old structure, as specified or shown and indicated on plans.

The contractor shall conduct his operations in such a manner as to insure the safety of the public at all times.

The contractor will be allowed to close the traffic of Cass Street during the erection of the new structure, but it shall be expressly understood that he shall conduct his operations in such a manner as, that when the substructure is completed, he shall immediately begin erection of the superstructure and complete the same as soon as possible. If, in the opinion of the Chief Engineer, the superstructure work is not advanced sufficiently to be ready for erection when the substructure is completed, the Chief Engineer shall have the right to postpone the beginning of the substructure work until, in his opinion, the work of the superstructure is in such an advanced state as to be ready for erection when the substructure is completed. The intention of this particular clause is not to close this public thoroughfare longer than absolutely necessary.

The traffic on the present Jefferson Street dge will be abandoned. The erection of new structure shall, however, if the Chief gineer so decides, not be started before the w Cass Street Bridge is completed and dy for traffic.

he removal and laying of street car tracks ll be done by the Joliet Railroad Com- ny, and shall not be included in this con- ct.

e contractor shall arrange his work to conform with all the ordinances in force in the City of Joliet.

SPECIFICATIONS FOR SUBSTRUCTURE.

The accompanying drawings form part of these specifications. The figured dimensions on the drawings are to be taken whenever they do not agree with the dimensions obtained by scaling from such drawings.

QUALITY OF MATERIAL.

Stone.

1. The stone used shall be Bedford stone, or an equally good stone, the quality subject to the approval of the Chief Engineer. It shall be sound and durable, free from drys, shakes or flaws, and of a character that will withstand the action of the weather. All stone must be quarried without the excessive use of explosives, and shall be taken out whenever practicable by the use of plug and feather. It shall be quarried in time to season against frost before being used.

Cement.

2. The best Portland cement shall be used on this work, brand and quality to be subject to the approval of the Chief Engineer. The weight per cubic foot of said cement shall be not less than one hundred (100) pounds. The development of tensile strength of said cement shall not be less than four hundred (400) pounds per square inch, after being exposed one (1) day in air and six (6) days in water. All lumpy, dirty, or damaged cement shall be rejected; also damaged or short weight packages.

Sand.

3. The sand used shall be coarse, clean and sharp, free from all clay, loam or gravel, and shall be well screened and of a quality approved by the Chief Engineer.

Mortar.

4. When Portland cement mortar is used for beds and joints, it shall be mixed in proportions of one (1) part of cement to three (3) parts of sand. When mortar is used for grout, it shall be mixed one (1) part of cement and two (2) parts of sand. When it is used for pointing, one (1) part cement and one (1) part sand.

Sheet Piling.

5. Sheet piling and bracing may be of any timber suitable for the purpose, and shall be of such dimensions and placed as directed by the Engineer.

CLASS OF WORK.

Excavation.

6. All foundations shall be prepared to receive the masonry by the contractor, who shall make excavations to such a depth and width as directed by the Engineer. The contractor shall also, where necessary, supply and operate, free of cost, all pumps in order to keep the foundation excavation dry. The contractor shall provide, drive, frame and place all sheet piling or other timber work necessary to the successful excavation and protection of the foundation excavation, and shall maintain the same until the masonry shall be built. All material excavated from the foundations shall be removed and placed in embankments or spoil banks, as may be directed by the Engineer, within a limit of five hundred (500) feet from the site of the excavation. The contractor shall make any excavation under the bridge as directed by the Engineer at the same price bid for foundation excavation.

7. All refilling ordered by the Engineer shall be done without extra cost to the Sanitary District.

Portland Cement Concrete.

8. Portland cement concrete shall be made in proportions as follows: One (1) part of Portland cement, three (3) parts of sand and five (5) parts of broken stone, all as per specifications. The cement and sand shall be thoroughly mixed before mixing with the stone, after which all three constituents shall be thoroughly incorporated to the satisfaction of the Engineer, and the mass sprinkled with clean water until it quakes under ramming The concrete shall be placed in the forms in layers of six (6) inches and compacted by ramming. All exposed faces of the abutments shall be faced with a layer of two (2) inches of Portland cement mortar in proportion of one (1) part of the specified cement to two (2) parts of the specified sand. This facing to be so applied as to secure a perfect bond with the concrete before the same has taken its initial set. All exposed faces to be smooth and true to the form called for by the plans. The stone for concrete shall be of a quality approved by the Engineer, broken into angular pieces of a size small enough to pass through a ring one and one-half (1½) inches in diameter, and entirely free from dust, sand, dirt or any foreign substance. The stone must be thoroughly drenched with clear water before mixing with the mortar.

Masonry.

9. All stone masonry shall consist of pitched draft, rock-faced work, built in regular courses, said courses to be of a thickness as shown on plans.

Pointing.

10. All masonry shall be pointed so as to fill the joints solid. The surface of the wall shall be scraped clean, and the joints freed of all mortar to a depth of one and one-half (1½) inches, and refilled solid by using proper ramming tools. Joints must be well wet before pointing.

Cramps.

11. Cramps shall be of such number and dimensions as shown on plan; these cramps shall be fitted into the course after it is laid, and to be countersunk; and all the holes shall be filled with grout made of Portland cement after the cramps are inserted. The cost of furnishing and placing these cramps and iron nosings shall be included in the price bid per cubic yard for masonry.

Measurement.

12. Measurements of all masonry shall be by the cubic yard, and payments shall be made upon the actual cubical contents of the completed masonry within the lines as shown on plans.

Temporary Roadway.

14. The contractor for the Jefferson Street Bridge shall remove the present arch bridge. He shall conduct his operations in such a manner as not to endanger or interfere with the traffic on the temporary bridge. He shall also take care that none of the material of the present bridge shall be deposited in the river or in any way obstruct the flow of water. If any material should fall in said river he shall, upon the order of the Engineer, immediately proceed to remove the same. The price paid for such removal within a limit of 500 feet, as directed by the Engineer, shall be by the cubic yard of such material as may be found in the present structure, except iron work of any description, such as brackets, railing, pipes, etc. The cost of the removal of the iron, the placing and piling of it within a limit of 500 feet from the site of the bridge as directed by and to the satisfaction of the Engineer, shall, however, be included in the price paid per

cubic yard for removing all other material. The handling of such iron work shall be done in a careful and workmanlike manner. If the contractor through carelessness should twist, bend, break or make unfit for future use any such iron work, he shall replace the same or pay the Sanitary District such sum or sums of money as the Chief Engineer shall consider just and equitable.

15. If the Chief Engineer so directs, the contractor shall build a temporary wooden structure around the site of the new bridge. This work shall consist of ordinary trestle work resting on caps with a four (4) inch thick floor plank. If deemed necessary, one Howe truss may be used to span the river. The material used in this temporary trestle work may be either pine or hemlock, except stringers, floor beams and cord members, which shall be white pine, all timbers to be sound, straight, free from large, loose or rotten knots. The payment for this temporary work shall be per thousand feet B. M. as used in the work, the price to include all bolts, spikes and other iron necessary in its construction.

Paving.

16. The contractor for the substructure shall furnish and relay all paving which is necessary to be removed in order to prosecute his work. The amount to be relaid shall include all pavement in the street up to the cast iron curbing on the abutments on both ends of the bridges. He shall furnish the same qualities of paving as those removed and shall prosecute the work in accordance with the specifications of the City of Joliet for such work and to the satisfaction of the City Engineer of said city. The contractor shall also lay the gas and water pipes up and into the abutments. The price for relaying the pavement shall be per square yard of such pavement laid or relaid, and shall include replacing of gas and water pipes.

Water and Gas Pipes.

18. The water and gas pipes at Jefferson reet Bridge shall, during its construction, ould the Chief Engineer so direct, be de-ated to the temporary structure. The work ıall be done in such a manner as to conform ı the latest specifications of the City of ıliet and to the satisfaction of the City ngineer of said city. The price for this viation of pipes at Jefferson Street shall e a lump sum and shall include the furnish-ıg and delivering of all new material outside the pipes in the present structure, and erecting in place all material and make all required corrections in a satisfactory and workmanlike manner.

SPECIFICATIONS FOR SUPERSTRUCTURE—PLANS

Instructions for Bidding.

19. This work consists of furnishing, delivering and erecting in place all iron and steel work, all concrete and sand in floors, all block pavement and sidewalk planking, and relaying of gas and water pipes in the new structures. A lump-sum bid is required for the entire superstructure.

Stipulations.

20. All plans and drawings prepared by the Sanitary District for this work, with all notes, dimensions, figures and corrections thereon, shall be considered a part of these specifications, and in the event of any discrepancies between plans and specifications, the judgment of the Chief Engineer shall be be decisive thereon.

21. All shop plans required shall be made by and at the expense of the contractor, and submitted to the Chief Engineer for approval before beginning work, and at least six (6) sets of prints of such approved plans shall be furnished the Sanitary District free of cost. No alterations of approved plans will be permitted to be made by the contractor without the written consent of the Chief Engineer.

22. The approval of said plans by the Chief Engineer will not relieve the contractor from the responsibility of errors thereon.

23. Plans furnished by the Sanitary District shall be carefully checked by the contractor before beginning work. Should errors be discovered, the Chief Engineer's attention should be called to the same and corrections made, after which the contractor will be responsible for all errors which may occur or may have occurred.

24. All such working drawings submitted shall have a uniform size of twenty-six (26) inches by forty (40) inches inside border lines, with border margins of one-half (½) inch. When submitted for approval, a complete set of such drawings shall be presented.

QUALITY OF MATERIAL—WROUGHT IRON.

Rivet Iron.

25. All iron used for rivets shall have an ultimate tensile strength of not less than 48,000 pounds per square inch, an elastic

limit of at least 26,000 pounds per square inch, and an elongation of at least twenty (20) per cent in eight (8) inches, and be so ductile that when bent cold through 180 degrees, and hammered down flat on itself, it shall show no sign of fracture on convex side of curve.

STEEL.

Character.

26. All steel shall be uniform in quality and made by the open hearth process.

27. Tests shall be made upon pieces cut from the finished material and shall not be less than one-half (½) square inch in sectional area. Two pieces, one for tensile test and one for bending test, shall be furnished for each blow or cast, and so selected that each heat or furnace full of billets, blooms or slabs shall be represented by at least one test to prove the condition of the metal after reheating, rolling, etc.

Medium Steel Tests.

28. When tested in specimens as above, medium steel shall have an ultimate tensile strength of from 60,000 to 68,000 pounds per square inch, an elastic limit of not less than 36,000 pounds per square inch, shall elongate not less than twenty-five (25) per cent in eight (8) inches, and show a reduction of area at point of fracture of not less than forty (40) per cent.

29. The test piece must also bend cold 180 degrees around a curve whose diameter is equal to the thickness of the piece without crack or flaw on convex side of bend.

30. A hole punched for a three-quarter (¾) inch rivet, one and one-half (1½) inches from the edge of the plate, shall be capable of being enlarged by drifting to one and one-eighth (1⅛) inches in diameter without sign of fracture.

Rivet Steel.

31. Rivet steel shall have an ultimate strength of 50,000 to 58,000 pounds and an elastic limit of not less than fifty-five (55) per cent of the ultimate, an elongation of not less than twenty-seven (27) per cent, and must bend 180 degrees flat on itself without sign of fracture on the convex side of the bend.

Rivets.

32. All hand driven rivets, whether shop or field, shall be of the best quality of rivet iron, as specified.

33. Specimens taken from all grades of steel, after being heated to a light cherry red (as seen in the dark), and quenched in water of 82 degrees Fahrenheit, must conform to the bending requirements above.

Chemical Analysis.

34. The chemical analysis for carbon and phosphorous of each blow or cast must be furnished to the Engineer or his inspectors, before any of the material rolled from said blow or cast is shipped from the mill. Phosphorous must not exceed six one-hundredths (0.06) per cent for acid steel, or four one-hundredths (0.04) per cent for basic steel.

Chippings and Alterations.

35. All blooms, billets or slabs shall be examined for surface defects, flaws or blow holes before being rolled into the finished sections, and such chippings and alterations made as will secure perfect solidity in the finished sections.

Marking.

36. The original blow or cast number must be painted or stamped on all blooms, billets or slabs in order to identify the material throughout the various processes of manufacture; and the original blow or cast number, together with the furnace heat number, must be *stamped* on each piece of finished material from said blow or heat.

37. All finished, rolled material must present a smooth, clean surface, free from buckles, flaws, cracks, ragged edges or any other defects, and must be straight throughout and true to section.

Brittle Steel.

38. No steel which proves brittle shall be used under any circumstances; if it develops this character at any stage of its manufacture, it shall be at once condemned and other material used. The object of the more particular clauses, hereto relating, is to guard against the possibility of the use of this class of metal.

CAST IRON.

39. Cast iron must be of the best quality of soft gray iron. The castings must be free from flaws, ragged edges, or any other defects impairing its efficiency or appearance; and bars of a section one (1) inch square, placed four (4) feet and six (6) inches between supports, must be strong enough to bear a weight of five hundred (500) pounds placed half way between supports.

Portland Cement.

40. Portland cement shall be of a quality as specified for substructure.

Sand.

41. Sand shall be of a quality as specified for substructure.

Portland Cement Concrete.

42. Portland cement concrete shall be made in proportion as follows: One (1) part of Portland cement; two and one-half (2½) parts of sand, and five (5) parts of broken stone, all as per specifications. The cement and sand shall be thoroughly incorporated before mixing with the stone, after which all three constituents shall be thoroughly incorporated to the satisfaction of the Engineer, and the mass sprinkled with clean water until it quakes under ramming. The stone used for the concrete shall be of a quality approved by the Engineer, broken into angular pieces of a size small enough to pass through a ring one inch in diameter, and entirely free from dust, sand, dirt or any foreign substance. The stone must be thoroughly drenched with clear water before mixing with mortar.

Paving Blocks.

43. After the roadway floor has been properly prepared, the entire surface of the roadway between the wheel guards shall be paved with the best quality of sound oak blocks sawed from five (5) inch plank, the plank to be sized to uniform thickness of five (5) inches; the blocks to be uniformly five (5) inches deep and from six (6) to twelve (12) inches long, sawed at right angles to sides, and to be free from all decay, loose or unsound knots or other defects. The blocks when laid must not be more than one-third seasoned; all plank to be inspected at time and place of sawing by an inspector appointed by the Sanitary District, and all rejected material shall be placed and kept separate from the balance. The blocks must be kept ry and free from snow or ice, and not laid t, in the opinion of the Engineer, the bridge oor is not in proper condition by reason of iow or rain to receive the same.

Laying Paving Blocks.

44. The paving blocks to be laid tight together, in rows or courses, and at right angles o the line of the roadway. They shall be ld so as to break joint at least two and one-lf (2½) inches with the blocks in the adjoining row and laid tight joints to the full depth. After the blocks are set, the entire paving shall be coated with coal tar composition and while hot shall be covered with one (1) inch of fine clean gravel.

Timber.

45. The sidewalk planking and other timber shall be of first quality, long leaf yellow heart pine, entirely free from sap and to be cut from live trees, grown south of the south line of Tennessee. To be straight, square edged, free of shakes, loose or rotten knots or other material defects.

WORKMANSHIP.

Character of Work.

46. All work must be done in a strictly first-class manner and shall at all times be subject to thorough and careful inspection.

47. Finished pieces shall be true to size, section and line, straight and out of wind at all points; and all machine, rivet and smith work done upon them shall be of the best character.

Straightening.

48. All material must be carefully straightened before being laid off.

Marking.

49. All parts which are given a descriptive letter or number in the drawings shall have that letter or number stenciled on them before shipment.

Annealing.

50. All steel tension members which have been heated shall, after work on them is completed, be thoroughly annealed by heating them uniformly to a cherry-red heat, and allowing them to cool slowly.

Splices.

51. Abutting joints shall be milled off to exact lengths, and square to the line of the chord, or to exact bevel, where required.

52. Pin holes shall be bored true to the line of stress and correct as to position.

Web Plates.

53. For all girders, web plates must be so arranged as not to project beyond the faces of the flange angles, nor be more than one-sixteenth (1-16) of an inch less on each edge than the distance out to out of the flange angles.

Matching.

54. After the splice plates are riveted on

in the shops, each line of chords shall be assembled, the joints matched, their abutting surfaces brought to a tight fit by use of clamps, and all the rivet holes in the ends of chords and splices shall be reamed to an exact match and fit. Match marks shall then be made in each piece.

Riveting.

55. All rivets with crooked heads, or heads not formed centrally on the shank, or rivets which are loose, either in the hole or under the shoulder, shall be cut out and replaced with good rivets.

56. The diameter of the hole shall not exceed the diameter of the rivet more than one-sixteenth (1-16) of an inch.

57. All joint rivet holes shall be so accurately spaced that rivets of the proper size can be passed through all the holes in the joint after the parts are placed in position without the use of drift pins.

Reaming and Fitting.

58. All splice plates in which the holes are mismatched, either in the plates themselves or with the adjoining chord or flange, shall be matched and the holes reamed to fit before leaving the shop.

59. No inaccurate or otherwise defective work will be accepted under any circumstances in the connection joints or riveted work.

60. The riveted field connections of floor beams, stringers, posts and struts must be accurately matched before leaving the shops, and all unmatched holes reamed to fit; the ends of floor beams and stringers must be machine faced to exact lengths.

61. Wherever practicable, rivets must be machine driven.

62. In all riveted steel work wherever reaming is specified, as in paragraph fifty-eight (58), the punch hole shall be one-eight (⅛) inch less than the size required, and shall then be reamed to fit.

Cambre.

63. The bridge shall be given a cambre not less than the deflection under extreme loads.

INSPECTION AND TESTS.

Specimens.

64. The Contractor shall furnish complete facilities for the inspection of material and workmanship. Small specimens for testing of material and also the necessary labor shall be furnished by the Contractor without charge, when called for by the Engineer or inspector. Inspectors will be retained by the Sanitary District with full power to reject all work or material which does not in every way conform to the letter and spirit of the specifications.

Mill Testing.

65. All material shall be inspected at the mills where it is rolled.

66. Test specimens shall fairly represent material to be tested, and shall not in any way be worked on to alter the quality before testing. They shall be cut whenever practicable so as to retain two opposite sides as they come from the rolls. Rods not exceeding one (1) square inch shall be test d in full size specimens.

67. Regular bending specimens shall be taken, one for every tensile test. They shall have the rough edges planed off, and shall be duplicates of, and cut from, the same originals as tensile tests for the same material.

68. Tests shall be sufficient in number to fairly represent, in the judgment of the Engineer, the material to be inspected; there shall, however, be no more than two (2) tests, *i. e.*, two (2) tensile and two (2) bending specimens, for every twenty pieces in the order.

69. The passing of any material at the mills shall not prevent its subsequent rejection for cause. If found defective after delivery, such material shall be replaced at the expense of the Contractor.

PAINTING AND SHIPPING.

Painting.

70. All of the iron work before leaving the shops shall receive one good coat of boiled oil well rubbed in and surplus oil taken off.

71. In the rivited work, the surfaces coming in contact shall be painted with two coats of red lead paint. Bottom of bed plates, bearing plates, and any parts which are not accessible for painting after erection, shall have two coats of paint of the same brand.

72. After the structures are erected, the iron work shall be thoroughly and evenly painted with two additional coats of red lead paint. The first coat shall be pure red lead (ground dry) and raw linseed oil, in proportions thirty-three (33) pounds of red lead to

one (1) gallon of oil. The second coat shall be in proportions of thirty-three (33) pounds of red lead to one (1) gallon of oil and one (1) pound of best lamp black to each six (6) gallons of oil used. The paint shall be mixed at the site of the work and only in such quantities as to be sufficient for one day's use.

73. All finished surfaces shall be coated with white lead and tallowed before being shipped from the shop.

74. No painting shall be done in wet or freezing weather.

Shipping.

75. All parts shall be carefully loaded, so as to avoid injury in transportation, and shall be at the Contractor's risk until erected and ready for the rails.

76. All screw ends shall be wrapped with twine before shipment.

77. All pins and small parts must be securely boxed, and the boxes plainly marked. The weights of large pieces must be marked on them. The invoices shall state the contents of each box and the weight and description of each piece that is not boxed, and two copies of each invoice shall be furnished the Sanitary District of Chicago.

ERECTION.

78. The Contractor shall furnish all staging and false work, shall erect and adjust all the metal work, shall furnish and put in place all concrete work, floor timbers, timber guards, also place the masonry bolts, and secure them in place.

79. The Contractor shall so conduct all of his operations as not to impede the traffic on public highways or interfere with the work of other contractors, or close any thoroughfare by land or water, except by written consent of the Chief Engineer or as herein specified.

80. The Contractor shall assume all risk of accidents to men or material prior to the acceptance of the finished structure. The Contractor must also remove all false work, filling and other obstructions, or unsightly material produced by his operations.

FINAL ACCEPTANCE.

81. Any material or workmanship which does not satisfy the requirements of these specifications may be rejected by the Chief Engineer at any time before the final acceptance of the work, and the Contractor shall make good all deficiencies at his own cost. The fact that the authorized inspectors have accepted said material or workmanship, shall not make the Sanitary District liable for extra cost above that specified in the contract for replacing same with material or workmanship accepted by the Chief Engineer on final acceptance.

GENERAL CONDITIONS.

Changes in Plan.

82. The amount of masonry figured from the plans is approximate, and the Sanitary District reserves the right to make alterations in the line, grade, plan, form or dimensions of the work herein provided for, either before or after beginning the construction thereof; provided, that if alterations are made, the general character of the work as a whole is not thereby changed. If such alterations diminish the quantity of the work to be done they shall not constitute a claim for damages nor for anticipated profits on the work that may be dispensed with; if they increase the amount of work, such increase shall be paid for according to the quantity of work actually done, and at prices and rates established for such work under this contract.

83. Notice of change of plan must be given to the Contractor in writing, and it is expressly agreed that no alterations or additions or extra work are to be paid for unless directed in writing.

Extra Work.

84. All claims for extra labor or material furnished by the Contractor or for damages from any cause whatever, must be reported to the Engineer at the time such labor or material are furnished or such damages occur, and they must also be presented to him in writing at the end of the month; provided, that nothing shall be paid for as extra work that can be classified under any of the heads upon which prices are fixed by this contract.

85. Whenever work is required to be done which is not now contemplated or covered by the prices hereinafter given, the Engineer shall fix such prices for the work as he shall consider just and equitable, and the Contractor shall abide by such prices, provided he enters upon such work with full knowledge of the prices so fixed by the Engineer; but if the Contractor declines executing said work at the prices fixed by the Engineer, then the Sanitary District may enter into contract with any person or persons for its execution,

the same as if this contract had never existed; and if extra work, or work not provided for in this contract, is performed by the Contractor, before prices have been fixed for such work, then the Engineer shall estimate the same at such prices as he shall deem just and reasonable, and his decision shall be final, and the said Contractor shall accept such prices in full satisfaction of all demands against the Sanitary District for said extra work; provided, that if the extra work done under this contract is of such a nature, being distinct from other work being done by said Contractor, that the actual cost of the same can be determined, then the said Contractor shall receive, and the Sanitary District shall pay, in full satisfaction for the same, the actual cost of the work with fifteen (15) per cent. added. Provided, further, that nothing shall be deemed extra work which can be measured or estimated under the provisions of this contract.

86. It is further agreed that in all cases of question or dispute arising or growing out of this contract in any way regarding the cost or value of extras, variations, allowances, deductions or the amount of damages in any manner growing out of the violation of this contract, the decision of the Engineer shall be final and binding on both parties hereto.

Responsibility of Contractor.

87. All the work provided for in this contract is to be done under the direction and supervision of the Chief Engineer and his properly authorized agents. The Contractor is to be guided by the lines, stakes, marks and grades given by them, and is to carefully preserve the same as far as possible during the progress of the work; and is to furnish all needed facilities, without charge therefor, to enable the Engineer to properly give lines and grades and to measure the work from time to time.

88. All work will be subject to inspection by the said Engineer and his said agents, and if not in accordance with the requirements of this contract is to be made good by the Contractor. The Contractor will be responsible for the entire work until completed and accepted by the Sanitary District. The Contractor will be required to give his personal attention to the fulfillment of this contract and to the execution of the work. He is to keep the same under his control, and will not be allowed to sub-let all or any part of it; it being distinctly understood and agreed that the sub-letting of the work covered by this contract, or any part thereof, shall, after thirty (30) days' notice, work a forfeiture of the contract at the option of the Sanitary District.

89. The Contractor will be required to safely maintain all traffic in a manner as hereinbefore stipulated in the construction of the work herein provided for; and will also be required to make all necessary changes in the structure as directed by the Chief Engineer, so as to enable him to construct the work herein provided for without any additional expense to the party of the first part.

90. The Contractor will not be allowed to assign, by power of attorney or otherwise, any portion of the moneys that may become due through the workings of this contract. In case the Contractor fails to comply with the provisions of this contract, as to progress and character of work, he shall be duly notified in writing, and thirty (30) days after the giving of said notice the party of the first part may declare this contract forfeited, if there is substantial failure to comply with its provisions.

Tools.

91. The Contractor is to furnish all the tools of every kind and description, including pumps, cars and tracks necessary to the full and complete carrying out of this contract, and on completion of the work is to remove all tools, buildings and material of all kind from the right of way of the Main Drainage Channel.

Precautions.

92. Whatever precautions may be necessary to render any portion of the work more secure in any respect, or to decrease the liability of accident from any cause, or to avoid contingencies which are liable to delay the completion of the work, shall be taken by the Contractor.

Workmen.

93, The Contractor shall employ competent foremen and laborers, and shall discharge, at the request of the Engineer, any incompetent or unfaithful men in his employ. None but men expert in their respective branches of work will be employed where special skill is required, and in the employment of men preference shall be given to union laborers.

94. It is especially understood and agreed that eight (8) hours shall constitute a day's

work and that no workman shall be employed or required to work more than eight (8) hours out of any twenty-four (24) hours, and no work in excess of that time shall be allowed.

95. In the event of any violation of the above eight (8) hour provision it is agreed hereby that the said District shall, and that it is duly authorized to retain from any money due or to become due at any time from it to the second party, as liquidated damages, the sum of five ($5) dollars per hour for each hour that any employe shall be required to work in excess of eight (8) hours per day, pursuant to the terms and conditions of the ordinance adopted June 23d, 1897, attached hereto.

Patents.

96. It is further agreed that the second party shall indemnify, keep and save harmless said first party from all liabilities, judgments, costs, damages and expenses which may in anywise come against said first party, or which may result on account of any infringement of any patent by means of the use of any materials, machinery, device or apparatus used in the performance of this contract, or of designs furnished by second party and accepted by the Sanitary District: and in the event of any claim or suit or action at law or equity of any kind whatsoever being made or brought against said first party, then first party shall have the right to retain a sufficient amount of money in the same manner and upon the same conditions as hereinafter in the next following clause of this contract provided.

Damages.

97. If any damage shall be done by the Contractor, or by any person or persons in his employ, to the owner or occupants of land or to any property adjoining or in the vicinity of the work herein contracted to be done, or to a neighboring contractor, the Engineer shall have the right to estimate the amount of said damage, and to cause the itary District to pay the same to the said ner or occupant, and the amount so paid said damage shall be deducted from the ney due from said Contractor under said tract.

. Said Contractor covenants and agrees ay all damages for any personal injury tained by any person growing out of any or doing of himself or his employes that n the nature of a legal liability, and he hereby agrees to indemnify and to save the Sanitary District harmless against all suits or actions of every name and description brought against the said Sanitary District for or on account of any such injuries or such damages received or sustained by any person or persons by or from said Contractor, his servants, agents or employes, in the execution of said work; or by or in consequence of any negligence in guarding the same; or by or on account of any act or omission of said Contractor, his agents or employes; and the said Contractor further agrees that so much of the money due to him, under and by virtue of this contract, as shall be considered necessary by the Board of Trustees of the Sanitary District, may be retained by the said Sanitary District until such suit or claim for damages, as aforesaid, shall have been settled, and evidence to that effect furnished to the satisfaction of the said Board of Trustees.

Time.

100. The Contractor for the Jefferson Street Bridge agrees to begin work covered by these specifications within fifteen (15) days after said contract shall have been executed, and to prosecute the building of the substructure herein provided for so as to complete the same on or before August 1, 1899, and to complete the superstructure so as to be ready for traffic on or before October 1, 1899.

Prices.

101. In consideration of the said work being carried on and completed in time and manner as hereinbefore specified, the said party of the first part agrees to pay to the said party of the second part the following amounts, and the said party of the second part agrees to receive and accept the same as full compensation for the performance of the work, including the furnishing of the materials, tools, labor, etc., to-wit.:

a.—For removal of old superstructure, as specified, the lump sum of ..... dollars ($.....).

a[1].—For deviating pipes onto temporary structure, as specified, the lump sum of five hundred dollars ($500.00).

b.—For each cubic yard of old masonry received, as specified, the sum of two dollars ($2.00).

c.—For each cubic yard of earth excavation, price to include all refilling, as specified, the sum of sixty hundredths dollar ($0.60).

d.—For each cubic yard of rock excavation, price to include all refilling, as specifid, the sum of four dollars ($4.00).

e.—For timber in temporary structure, sheet piling and bracing in place, per thousand (1,000) feet B. M. (price to cover all spikes, bolts or other iron to be used in constructing the same) as per terms of this contract, the sum of fifty dollars ($50.00).

f.—For each cubic yard of Portland cement concrete, as specified, the sum of five and seventy-five hundredths dollars ($5.75).

g.—For each cubic yard of completed masonry, as specified, the sum of thirteen dollars ($13.00).

h.—For each square yard of pavement laid or relaid in the street up to cast-iron curbing (price to include relaying of pipes), as specified, the sum of one and fifty hundredths dollars ($1.50).

i.—For superstructure complete, as specified, the lump sum of twenty-three thousand and one hundred and sixty dollars ($23,160.00).

j.—For extra medium or soft steel erected in place, the sum of three and one-half cents (3½c).

k.—For extra cast iron erected in place, the three cents (3c).

l.—For extra lumber built in place, the sum of twenty-eight dollars ($28.00) per thousand feet B. M.

102. The prices proposed must include all royalties for patents or patented material and appliances used in the construction of the work described in the specifications and agreements; and before final payment is made the Contractor shall furnish a satisfactory guarantee against all claims.

Time and Manner of Payment.

103. It is agreed by the party of the first part that on or before the 10th and 25th days of each month during the progress of the work, and subject to the provisions hereinbefore specified under the head of "Time," payment will be made to the said party of the second part to the amount of eighty-seven and one-half (87½) per cent. of the contract price of the substructure of the approximate amount of work done during the previous half month, upon written certificate from the Engineer that such approximate amount of work has been done during that period; twelve and one-half (12½) per cent being reserved until the completion and acception of the whole work.

104. It is agreed by the party of the first part that when the entire iron work shall have been delivered at the site of erection, payment shall be made by the party of the second part to the amount of sixty (60) per cent. of the contract price of the superstructure upon written certificate from the Chief Engineer that such approximate amount of work has been done. The remaining forty (40) per cent. to be paid within thirty (30) days after the completion of the work and its acceptance by the party of the first part.

Certificate.

105. Upon the completion of the substructure in accordance with the specifications and contract, to the full satisfaction of the Chief Engineer, and upon the inspection of same and the issuance of the final certificate by the Chief Engineer, the said party of the first part agrees to pay to the said party of the second part the amounts shown to be due to said second party by the said certificate of the said Chief Engineer, including the twelve and one-half (12½) per cent. reserved.

106. Upon the completion of the superstructure in accordance with the specifications and contract, to the full satisfaction of the Chief Engineer, and upon the inspection of same and the issuance of the final certificate by the Chief Engineer, the said party of the first part agrees to pay to the said party of the second part the amount shown to be due to the said party of the second part by the said certificate of the said Chief Engineer.

Failure to Complete.

107. It is further agreed by the said party of the second part that, if the work to be done under this contract on the substructure shall be abandoned, or if it shall be assigned by him, or if he loses control of the work from any cause, excepting acts of God and the public enemy, or if the rate of progress is not such as to insure its completion within the time specified, or if at any time the Engineer shall be of the opinion, and shall so certify in writing to the said party of the first part, that the said work or any part thereof is unnecessarily and unreasonably delayed, or that the Contractor is willfully and persistently violating any of the conditions or covenants of this contract, or is not fulfilling said contract in good faith, the said party of the first part shall have the power to notify the said

Contractor to discontinue all work, or any part thereof, as may be designated by the said party of the first part, and the said party of the first part shall thereupon have the power either to complete said work by contract or to employ such men and teams, and to obtain such machinery, implements and tools, and to purchase such material as the said Engineer may deem necessary to complete the work herein described, or any part thereof. And in so doing said Engineer may use such tools, implements and materials as may be found upon the line of said work. The cost of doing such work by the said Engineer shall be charged to the said Contractor, and the expense so charged shall be deducted and paid by the said party of the first part out of such moneys as may be due, or may at any time thereafter become due to said Contractor under and by virtue of this contract, or any part thereof, so far as the same shall suffice therefor; and the balance, if any, shall be paid by said Contractor on demand.

108. The entire metal work for the Jefferson Street Bridge herein provided for shall be delivered at the site of the erection on or before August 1, 1899, and all the work of the superstructure to be done under this contract shall be completed and ready for inspection on or before the first day of October, 1899.

109. Should there be a failure by the second party to deliver said iron work of the character and ftrength herein provided for at the time herein specified, or if, after delivery of same as herein provided, said Contractor shall fail financially, either before or after having been paid the sixty (60) per cent. of the contract price as hereinbefore provided, and be unable to carry out said contract and complete said work, then, in that case, the said party of the first part shall have the power to complete said work by contract or otherwise, at its discretion, and charge up the cost of so completing the said work to said Contractor. Should the amount remaining unpaid of the contract price not suffice herefor, then said Contractor and his bondsmen shall be held liable for the deficiency.

Failure to Pay Laborers.

110. If at any time during the progress of said work the said Contractor shall fail or neglect to pay for labor performed of material furnished upon said work for ten (10) days after it shall have become due, then the party of the first part shall have power to pay for such labor or for materials, tools, explosives, machinery, appliances, fuel, provisions or supplies of any sort or kind used or consumed in, upon or on account of the work covered by this contract; the party of the first part shall have the power to pay for such labor or materials, explosives, machinery, appliances, fuel, provisions or supplies of whatsoever sort or kind, out of moneys that may be due to said Contractor, and said amount so paid shall be retained out of any money due or to become due to said Contractor. In any such case the party of the first part is hereby authorized and empowered by the said party of the second part to ascertain by its Engineer the amounts due or owing from said Contractor to any laborer or laborers or to any person or persons for materials, tools, explosives, machinery, appliances, fuel, provisions or supplies of any sort or kind consumed upon, in or on account of the work covered by this contract in such manner and upon such proofs as the said Engineer may deem sufficient.

Contractors' Bonds.

111. The Contractor shall furnish a bond in the sum of eight thousand ($8,000) dollars for the substructure and superstructure of the Jefferson Street Bridge, with good and sufficient sureties, the same to be satisfactory to the Board of Trustees of the Sanitary District, conditioned upon the faithful performance of all the terms and conditions of this contract; and should the sureties on said bond at any time fail financially, or be, in the opinion of the said Board of Trustees, insufficient security for the penalty of said bond, then, in that case, they may, on giving ten (10) days' notice thereof in writing, require said Contractor to furnish a new and additional bond in the place of the bond so having become insufficient or worthless.

Final Payment.

112. The said party of the second part further agrees that he shall not be entitled to demand or receive final payment for any portion of the aforesaid work or materials except in the manner set forth in this agreement, nor until all of the stipulations hereinbefore mentioned are complied with, and the said Chief Engineer shall have given his certificate to that effect; whereupon the said party of the first part will, at the expiration of thirty (30) days after such completion and delivery of such certificate, pay, and thereby

binds itself to pay, the said party of the second part, in cash, the whole amount of money accruing to said second party under this contract, excepting such sum or sums of money as may be lawfully retained under any of the provisions of this contract hereinbefore set forth. Provided that nothing herein contained shall be construed to affect the right hereby reserved of the said party of the first part to reject the whole or any portion of the aforesaid work should the said certificate be found to be inconsistent with the terms of this agreement, or otherwise improperly given.

The contractor hereby agrees to forfeit as liquidated damages for any noncompliance with or nonfulfillment, of the provisions of this contract the sum of fifty ($50) dollars per day for each day beyond the time specified, within which each portion of the work herein provided is to be completed, time being an essential part of this agreement.

In Witness Whereof, On the day and year first above written, the said Sanitary District of Chicago has caused this agreement to be signed by its President and attested by its Clerk, and its corporate seal to be hereto affixed, and the said party of the second part has hereunto set its hand and seal.

(Signed)

The Sanitary District of Chicago,

By WM. BOLDENWECK,

President.

Attest:

(Signed) JOSEPH F. HAAS,

[SEAL] *Clerk.*

(Signed) THE J. G. WAGNER CO. [SEAL.]

(Signed) R. G. WAGNER, [SEAL.]

V. Prest.

(Signed) W. J. SCASE, [SEAL.]

Sec'y."

The contract and specifications for the "Substructure, superstructure and auxiliary work for the Cass Street Bridge across the Desplaines River in the City of Joliet, Illinois," are identical in every respect with those for the Jefferson Street Bridge, as published in the foregoing, except the parts given, and omissions as indicated, below:

"SANITARY DISTRICT OF CHICAGO.

Contract and Specifications for the Substructure, Superstructure and auxiliary work for the Cass Street Bridge across the Desplaines River, in the City of Joliet, Illinois.

THIS AGREEMENT, Made and entered into this sixth day of April, A. D. 1899, by and between the Sanitary District of Chicago, of the first part, and the J. G. Wagner Company, of the City of Milwaukee, in the State of Wisconsin, of the second part.

A—

WITNESSETH: That the said party of the second part has covenanted, contracted and agreed, and by these presents does covenant, contract and agree with the said party of the first part, for the consideration of the payments to be made as provided for herein, to the said party of the second part by the said party of the first part, and under a penalty expressed in a bond bearing even date herewith, at his own proper cost and expense, to do all the work, and to furnish all material, tools, labor and all appliances and appurtenances called for by this agreement, in the manner and under the conditions hereinafter stipulated, that are necessary to the complete doing of the work known and distinguished by the specifications herein contained, and the plans accompanying them, as the construction of the substructure and superstructure of the Cass Street Bridge across the Desplaines River.

Removal of Old Masonry.

13. The contractor for the Cass Street Bridge shall remove the old masonry and the superstructure to such place or places as may be directed by the Engineer, within a limit of 500 feet from the site of the bridge. The removal of the superstructure shall be done in a careful and workmanlike manner. The iron shall be placed and piled up as directed by the Engineer, within limits specified. Should the contractor, through carelessness, twist, bend, break or make unfit for future use any such iron, he shall replace the same or pay the Sanitary District such sum or sums of money as the Chief Engineer shall consider just and equitable. Payment for removal of masonry shall be by the cubic yard, and for the removal of the superstructure shall be in a lump sum.

14. *Omitted.*

Water and Gas Pipes.

17. The contractor for the Cass Street Bridge shall, during its construction, maintain the present water and gas pipes in a

manner satisfactory to the City Engineer of Joliet.

18. *Omitted.*

Time.

99. The Contractor for Cass Street Bridge agrees to begin the work covered by specifications within fifteen (15) days after said contract shall have been executed and to prosecute the building of the substructure herein provided for so as to complete the same on or before July 1st, 1899; and to complete the superstructure so as to be ready for traffic on or before September 1st, 1899.

100. *Omitted.*

Prices.

101. In consideration of the said work being carried on and completed in the time and manner as hereinbefore specified, the said party of the first part agrees to pay to the said party of the second part the following amounts, and the said party of the second part agrees to receive and accept the same as full compensation for the performance of the work, including the furnishing of the materials, tools, labor, etc., to-wit:

a.—For removal of old superstructure, as specified, the lump sum of five hundred dollars ($500.00).

a[1].—*Omitted.*

b.—For each cubic yard of old masonry removed, as specified, the sum of two dollars ($2.00).

c.—For each cubic yard of earth excavation, price to include all refilling, as specified, the sum of sixty hundredths dollars ($0.60).

d.—For each cubic yard of rock excavation, price to include all refilling, as specified, the sum of four dollars ($4.00).

e.—For timber in temporary structure, sheet piling and bracing in place, per thousand (1,000) feet B. M. (price to cover all spikes, bolts or other iron to be used in constructing the same) as per terms of this contract, the sum of fifty dollars ($50.00).

f.—For each cubic yard of Portland cement concrete, as specified, the sum of five and seventy-five hundredths dollars ($5.75).

g.—For each cubic yard of completed masonry, as specified, the sum of thirteen dollars ($13.00).

h.—For each square yard of pavement laid or relaid in the street up to cast-iron curbing (price to include relaying of pipes), as specified, the sum of one and fifty hundredths dollars ($1.50).

i.—For superstructure complete, as specified, the lump sum of twenty-nine thousand nine hundred and seventy-six dollars ($29,976.00).

j.—For extra medium or soft steel erected in place, the sum of three and one-half cents (3½ cts.).

k.—For extra cast iron erected in place, the sum of three cents (3 cts.).

l.—For extra lumber built in place, the sum of twenty-eight dollars ($28.00) per thousand feet B. M.

108. The entire metal work for the Cass Street Bridge herein provided for shall be delivered at the site of the erection on or before July 1st, 1899, and all the work of the superstructure to be done under this contract shall be completed and ready for inspection on or before the first day of September, 1899.

Contractors' Bond.

111. The Contractor shall furnish a bond in the sum of five thousand ($5,000) dollars for the substructure and superstructure of the Cass Street Bridge, with good and sufficient sureties, the same to be satisfactory to the Board of Trustees of the Sanitary District, conditioned upon the faithful performance of all the terms and conditions of this contract; and should the sureties on said bond at any time fail financially, or be, in the opinion of the said Board of Trustees, insufficient security for the penalty of said bond, then, in that case, they may, on giving ten (10) days' notice thereof in writing, require said Contractor to furnish a new and additional bond in the place of the bond so having become insufficient or worthless."

PURCHASE OF LAND FROM SAYRE RODMAN.

Mr. Carter, Chairman, presented, and the Clerk read, a report from the Joint Committee on Finance and Engineering, setting forth that an agreement had been reached for the purchase of certain lands, as described in the report, and recommending that the Clerk of the District be authorized and directed to pay on the voucher of the Attorney to Sayre Rodman, in full payment for said lands, the sum of $250.00, all as set forth in the report.

Mr. Carter: seconded by Mr. Smyth, moved that the report be adopted and

the recommendations contained therein concurred in.

On roll call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Jones, Kelly, Mallette and Smyth—seven, Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT.

"CHICAGO, April 8, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—The Joint Committee on Finance and Engineering has reached an agreement for the purchase of certain lands and interests therein necessary for the corporate purposes of the District hereinafter described, at the price herein stated, to-wit:

From Sayre Rodman, the land hereinafter described, for the sum of two hundred and fifty ($250.00) dollars, as follows: Beginning at a stake on the east line of the right of way of the Chicago & Santa Fe Railroad and one hundred and eight feet (108) south of the township line, thence south along said right of way fifty (50) feet, thence east one hundred (100) feet, thence north fifty (50) feet, thence west one hundred (100) feet to the place of beginning; the said parcel of land being part of the tract of land containing four (4) acres and ten (10) rods, which is described by metes and bounds as follows: Beginning at a point on the south line of the road on the north side of the northwest quarter (¼) of Section two (2), Township thirty-six (36) North, Range ten (10), east of the third principal meridian, ninety (90) feet west from the west bank of the Illinois and Michigan canal; thence running west along the south line of said road twenty-six (26) rods, thence southerly along a line parallel with the canal twenty-five (25) rods, thence east along a line parallel with the said road twenty-six (26) rods, to a point ninety feet (90) west from the west line or bank of the canal, thence northerly along a line ninety (90) feet west of the west bank of the canal twenty-five (25) rods to the place of beginning; said land being located in Will county, in the State of Illinois.

Your committee therefore recommends that the clerk of the district be authorized and directed to pay, on the voucher of the attorney, to the said Sayre Rodman, the sum of two hundred and fifty ($250.00) dollars, in full payment for the lands hereinbefore described.

Respectfully submitted,

(Signed) Z. R. CARTER,
Chairman,
THOMAS KELLY,
J. P. MALLETTE,
ALEX. J. JONES,
THOMAS A. SMYTH,
WM. BOLDENWECK,

Joint Committee on Finance and Engineering."

REPORT IN REFERENCE TO COMPLETION OF CONTRACT FOR SUPERSTRUCTURE OF A., T. & S. F. BRIDGE NEAR EAST END OF SECTION "G."

Mr. Smyth, Chairman, presented, and the Clerk read, a report from the Committee on Engineering, with reference to, and accompanied by, the final certificate of the Chief Engineer, as to the completion of the contract with the Carnegie Steel Company, Limited, for the superstructure of the A., T. & S. F. Bridge near east end of Section "G," the same having been presented and recommitted to that Committee at the meeting held February 16, 1899, (page 5476 of the Proceedings), the report recommending that the President and Clerk of the District be authorized and directed to make final payment to said Carnegie Steel Company, Limited, in the sum of $20,416.00, upon the execution of a receipt in favor of the District by said company, in full, and releasing the District from any and all claims or demands whatsoever.

Mr. Smyth, seconded by Mr. Braden, moved that the report be adopted and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Kelly, Mallette and Smyth—six. Nays—Mr. Jones—one.

Upon this result, the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, April ,10 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Your Committee on Engineering to which was recommitted

(page 5476 of Proceedings) the final certificate of the Chief Engineer of the District with reference to the completion of the contract of the Carnegie Steel Company, Limited, for the superstructure of the Atchison, Topeka & Santa Fe Railway bridge near the east end of Contract Section "G" of the Main Channel, herewith makes report that the Committee has examined said final certificate and fully considered the subject matter of the work done under said contract, and recommends as follows:

That the President and Clerk of the District be authorized and directed to make final payment to the said Carnegie Steel Company, Limited, in the sum of twenty thousand four hundred and sixteen ($20,416 00) dollars, the sum found to be due said company in the aforesaid certificate hereto attached, upon the execution of a receipt in favor of the District to be made by said company in full and releasing the District from any and all claims or demands of whatsoever kind or nature.

Respectfully submitted,

(Signed) THOMAS A. SMYTH,
Chairman.

J. P. MALLETTE,
JOS. C. BRANDEN,
Z. R. CARTER,
THOMAS KELLY,
WM. BOLDENWECK,
Committee on Engineering."

(Accompanied by final certificate.)

The following is

FINAL CERTIFICATE OF CHIEF ENGINEER,

"CHICAGO, February 7, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I hereby certify that the Carnegie Steel Company, Limited, has completed all of the work covered by its contract, dated Jan. 13, 1898, for the furnishing of the material for, and contruction of the superstructure for the A. T. & S. F. R. R. Co's. Bridge on Conract Section "G" of the Main Channel. The work is done to the full satisfaction of the Chief Engineer and in accordance with the terms of said contract with this District.

This certificate is given subject to any unaccrued or unmatured obligations imposed by the contract.

The statement of the work done is as follows:

Total amount earned	$51,040 00
Total amount paid,.....	30,624 00
Balance due and unpaid	$20,416 00

Respectfully submitted,

ISHAM RANDOLPH,
Chief Engineer."

REDUCTION OF BOND ON CONTRACT FOR SECTION "F."

Mr. Smyth, Chairman, presented, and the Clerk read, a report from the Committee on Engineering, with reference to, and accompanied by, a communication from the City Trust Safe Deposit and Surety Company of Philadelphia, in regard to the release of the bond of Messrs. Gahan & Byrne on contract for Section F, the report recommending that the sureties on the original bond be released from further liability, (the contractors, however, to remain liable thereon), when said contractors shall have filed a new bond in lieu thereof in the penal sum of $2,500.00, with sureties thereon, acceptable to the Finance Committee and approved by the Board.

Mr. Smyth, seconded by Mr. Braden, moved that the report be adopted and the recommendations contained therein concurred in.

On roll call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Jones, Kelly, Mallette and Smyth—seven. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT.

"CHICAGO, April 10, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Your Committee on Engineering, to which was referred at the meeting of the Board, March 17, 1899 (page 5573 of proceedings), the communication of the Chief of Engineer of the District transmitting a communication from the City Trust, Safe Deposit & Surety Company of Philadelphia, in reference to the release of the bond of Messrs. Gahan & Byrne on contract for Section "F," herewith reports that the committee has considered the subject matter of the said request and is of opinion that said bond should be reduced.

The committee, therefore, recommends that the sureties on the bond originally given with the contract for said section be released from further liability thereon (the contractors, however, to remain liable thereon), when said contractors shall have filed with the district a new bond in the penal sum of twenty-five hundred ($2,500.00) dollars, with surety thereon acceptable to the Finance Committee and approved by this Board.

Respectfully submitted,

(Signed) THOMAS A. SMYTH,
Chairman.
J. P. MALLETTE,
JOS. C. BRADEN,
ALEX. J. JONES,
Z. R. CARTER,
THOMAS KELLY,
WM. BOLDENWECK,
Committee on Engineering."

(Two enclosures.)

REDUCTION OF BOND ON CONTRACT FOR SUPERSTRUCTURE OF A., T. & S. F. BRIDGE NEAR EAST END OF SECTION "G."

Mr. Smyth, Chairman, presented, and the Clerk read, a report from the Committee on Engineering in reference to the reports of the Chief Engineer of the District, transmitting communications from the Carnegie Steel Company, Limited, asking the release of their bond on the contract for the superstructure of the A., T. & S. F. Bridge near the east end of Section G, the same having been presented and referred to that Committee at the meetings held January 25 and March 17, 1899, (pages 5440 and 5578 of the Proceedings); the Committee report recommending that the sureties on the original bond be released from further liability (the contractor, however, to remain liable thereon), when said company shall have furnished a new bond in lieu of said original bond in the sum of $2,000.00, with surety thereon, to be acceptable to the Finance Committee and approved by the Board.

Mr. Smyth, seconded by Mr. Mallette, moved that the Committee report be adopted and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Jones, Kelly, Mallette and Smyth—seven. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, April 10, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Your Committee on Engineering, to which was referred (page 5440 of Proceedings) the communication of the Chief Engineer of the District, dated January 10, 1899, transmitting a communication from the Carnegie Steel Company, Limited, asking for a release of the bond given for the performance of their contract for the superstructure of the railroad bridge crossing the Main Channel at Section "G," desires herewith to report that the committee has considered said request, and is of opinion that, while it is inexpedient at the present time to release in full the bond given by the said company on the contract aforesaid, said bond might be reduced materially because the work on said superstructure has been completed.

The committee therefore recommends that the sureties on the original bond given by said company with said contract be released from further liability thereon (the contractor, however, to remain liable thereon) when said company shall have furnished the District a new bond in lieu of the said original bond in the penal sum of two thousand ($2,000) dollars, with surety thereon to be acceptable to the Finance Committee and approved by this Board.

Respectfully submitted,

(Signed) THOMAS A. SMYTH,
Chairman.
J. P. MALLETTE,
JOS. C. BRADEN,
Z. R. CARTER,
THOMAS KELLY,
WM. BOLDENWECK.
Committee on Engineering."

(Six enclosures.)

ADJOURNMENT.

On motion of Mr. Carter, seconded by Mr. Smyth, the Board then adjourned.

THOMAS S. BELL,
Acting Clerk.

PROCEEDINGS

—OF THE—

BOARD OF TRUSTEES

—OF THE—

SANITARY DISTRICT OF CHICAGO.

APRIL 19, 1899.

OFFICIAL RECORD.

Published by authority of the Board of Trustees of the Sanitary District of Chicago.

REGULAR MEETING.

The four hundred and thirty-fifth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Wednesday, April 19, 1899, at 2 o'clock P. M.

On roll-call Messrs. Boldenweck, Carter, Eckart, Kelly, Mallette, Smyth and Wenter — seven members, were present, Mr. Braden arriving subsequently.

VOUCHERS.

The Clerk presented the following vouchers:

ENGINEERING DEPARTMENT.

onald Fraser (inspection of bridges)	$ 219 07	
alph Modjeski (checking plans of Pan Handle Bridge)	538 70	
		$ 757 77

POLICE DEPARTMENT.

hn Larney (coal)	$ 40 70	
J. Coen (expense)	52 25	
		$ 92 95

GENERAL ACCOUNT.

A. R. Reynolds (streams examination)	$ 19 75	
E. O. Jordan (streams examination)	189 11	
A. W. Palmer (streams examination)	197 69	
		$ 406 55

CONSTRUCTION ACCOUNT.

Halvorson, Richards & Co. (Section E, April 15, 1899)	$ 7,000 00	
Christie & Lowe (cleaning Bear Trap Dam metal work)	122 16	
Geo. M. Huss (Belt Railway Bridge)	114 29	
		$ 7,236 45
Grand total		$ 8,493 72

* To be paid by warrants, with interest coupons attached, drawn against the Tax Levy for the year 1899.

Mr. Carter, seconded by Mr. Wenter, moved that the vouchers as read and shown above be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Carter, Eckhart, Kelly, Mallette Smyth and Wenter—seven. Nays—none.

Upon this result the President declared the motion carried.

WEEKLY REPORT ON EMPLOYES.

The Clerk presented a report, in accordance with the Rules, showing the number of persons in the employ of the District for the week ending April 15, 1899, which was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, April 19, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I beg leave to report herewith the number of enployes in each department for the week ending April 15, 1899, as the same have been reported to me:

Engineering department	77
Maintenance account	8
Clerical department	5
Law department	8
Treasury department	1
Police department	29
Telephone operator	1
Total employes	129

Respectfully submitted,

(Signed) THOS. S. BELL,
Acting Clerk."

MONTHLY REPORT FROM ENGINEERING DEPARTMENT.

The Clerk presented a report from the Engineering Department for the month of February, 1899, which, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, April 8, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I herewith transmit the report of the Engineering Department for the month of February, 1899, giving the detailed operations of the several divisions constituting the same.

The value of the construction work done during the month was $141,785.40, divided as follows: Main Channel, $55,407.97; bridges, $86,377.43. The engineering expenses for the month were $12,184.79, divided as follows: Salaries, $8,269.40; supplies, etc., $3,915.39. Details of the above figures are given in tabulated statements submitted herewith.

DIVISION OF CONSTRUCTION.

The weather during the month was generally fair, but extremely cold. Rain was recorded on four days and snow on two days. The temperature varied from -20 degrees to 40 degrees Fahrenheit.

Chicago River Improvement—The work on the By-Pass along the Chicago River for the month was as follows: Eight hundred cubic yards of excavation were removed from the Adams Street By-Pass by the same plant as was employed last month. The work of building the west wall at this place was begun, and

223 cubic yards of concrete were placed; 11,700 feet, B.M., of grillage were placed, and 15,600 feet, B. M., were used in the coffer-dam and temporary roadway. Very little work was done at Jackson Street; 154 lineal feet of dock were constructed at Canal Street. On the 28th of the month a voucher for $3,278.68 was issued to the City of Chicago for lengthening its tunnel and laying water pipe at Adams Street. Part of this amount was for work done by the Lydon & Drews Company, placing water pipe in tunnel and shaft at that point, and for miscellaneous work in the same connection. All of this work was done during October of 1898.

The contractors discontinued the dredging of the Chicago River for this month, but expect to resume work about the middle of March.

Section "*O*"—On February 23rd a final voucher was rendered to McMahon & Montgomery Company et al., for work done on this section. The increase in quantities shown by this voucher is as follows: Main Channel, 8,437 cubic yards glacial drift; surface ditches and roadways, 10,594 cubic yards glacial drift; enlarged channel, 22,125 cubic yards glacial drift. Of the material taken from the collateral channel, 8,000 cubic yards still remain on the bank, and a deduction of two cents per yard was made for same in accordance with the contract.

During the month the following collateral vouchers were drawn:

McMahon & Montgomery Company et al. (dismantling and re-erecting dredges to pass under Pan Handle Temporary Bridge)	$1,278 87
P., C., C. & St. L. Ry. Co. (watchman, account Pan Handle Temporary Bridge)	85 40
C., T., T. R. R. Co. (switch tenders, account Pan Handle Temporary Bridge)	100 90
C. J. Ry. Co. (sundries, account Pan Handle Temporary Bridge)	161 59

Operations on the superstructure of ıe Southwest Boulevard Bridge were ɔntinued all the month, weather perıitting, and on the 11th a voucher for 30,961.83 was issued to the J. G. Wagıer Company on account of work done n this connection.

Section "*N*"—Owing to the prevalence f bad weather the shovel and incline ıant worked but nine days during the ɔnth. The excavated material was deposited in the boulevard south of the Ogden Ditch. The contractors made some preparations to move the incline from the north bank over Kedzie Avenue to the south bank.

The work on the superstructure of the C. M. & N. R. R. Co.'s Bridge over the Main Channel was continued throughout the month and nearly completed.

The work of erecting the girders for the C. M. & N. R. R. Co.'s Bridge over Kedzie Avenue was begun on the 7th and continued throughout the month.

Work was continued throughout the month on the Kedzie Avenue Bridge over the Main Channel, nearly completing same.

Work was also continued throughout the month on the superstructure of the Santa Fe Bridge on this Section, and is well under way.

Section "*K*"—On February 1st Geo. M. Huss began work on the temporary bridge for the Belt Railway Company and continued same during the entire month. The pile driving began on the 3rd of the month. In connection with this work it was found necessary to do some excavating in order to get the cut-off, close to the railway bank, low enough. The quantities vouchered on account of this work were as follows: Piles driven, 2,288 lineal feet; timber in structure, 33,000 feet, B. M.

Section "*G*"—The A. T. & S. F. Ry. Co.'s Bridge on this section was swung on the 1st of the month to admit of the passage of Gahan & Byrne's steam shovel, which was brought up from Section "F" to complete work on Sections "G" and "H." On the 3rd of the month the bridge was swung back to place. A final voucher, amounting to $20,416.00, was issued to the Carnegie Steel Company, Limited, for work on the superstructure of this bridge. The Santa Fe Company continued work during the month laying track and ballasting its new roadbed. A voucher for $312.21 on this account was issued for work done in July, 1898.

Section "*F*"—On February 14th a final voucher amounting to $17,142.21 was rendered Gahan & Byrne for work done on this section. The increase in quantities shown by this voucher is as follows: Main Channel, 8,740 cubic yards glacial drift; surface ditches, 601 cubic yards glacial drift; Main Channel, 686 cubic yards solid rock; revetment excavation, —657 cubic yards glacial drift; revetment wall, 2,770 cubic yards.

Owing to bad weather and various other reasons, work on the Lyons-Summit Road permanent bridge over the Main Channel was prosecuted but eight days during the month on the center pier masonry. Five courses in all were laid. The quantities vouchered during the month on this account are as follows: Timber in foundation; 172 feet, B. M.; natural cement concrete, 56 cubic yards; Portland cement concrete, 150 cubic yards; masonry, 303 cubic yards. On the 20th of the month, the material for the superstructure of this bridge began to arrive.

Section "E" — The merry-go-round plant continued the work of excavating glacial drift until near the end of the month. One shovel quit work on the 25th, and the other on the 27th of the month, all the glacial drift having been removed. The total number of cubic yards removed by this plant from the Main Channel was 5,322 cubic yards, of which 1.011 cubic yards were removed from between Stations 462 and 472, and classified as rock; 9,269 cubic yards were removed from revetment, making the total material handled by the shovels during the month 14,591 cubic yards.

Rock excavation by the Peteler car and derrick plants was continued throughout the month. The total quantity removed was 7,109 cubic yards, all of which was placed in revetment wall, of which 9,853 cubic yards were finished during the month. Owing to unavoidable delay in taking estimate notes, no voucher was rendered at the end of the month for this work. The amount vouchered during the month on this account was as follows: Main Channel, 1,000 cubic yards glacial drift; Main Channel, 3,000 cubic yards solid rock; revetment excavation, 4,000 cubic yards glacial drift; revetment wall, 5,000 cubic yards.

A voucher for $107.87 was issued on the 28th of the month to the C., T., T. R. R. Co. for sundry expenses in connection with its temporary bridge over the Desplaines River.

On the 28th of the month a voucher for $1,519.69 was issued to the C., T., T. R. R. Co. for work done in November and December, 1898, and in January, 1899, filling and grading approaches to its bridges over the Main Channel and Desplaines River on this section. The work of building revetment in front of abutments of bridge of this company over the Main Channel was continued during the month, but not completed.

The excavation for the south abutment of the C., T. R. R. Co's. Bridge over the Desplaines River was continued to the 15th of the month when forms were set for concreting. On account of the pit having been entirely flooded, no concrete was laid during the month. A pump was fitted up towards the end of the month for the purpose of pumping out said pit. On the 2nd of the month a voucher for $3,293.10 was issued to the Wisconsin Bridge and Iron Company for having manufactured the material for the superstructure of this bridge.

Section 1—About eighteen men worked up to the 12th of the month, placing and riveting irons in connection with the superstructure work of the Willow Springs Road Bridge over the Main Channel on this section. The traveler was in operation six days, and the two hand derricks previously reported, up to the 12th inst. A small force of riveters were at work the balance of the month. The bridge is practically completed.

Section 3—Eighteen to twenty men were at work about twenty days of the month on the superstructure of the A., T. & S. F. Ry. Co.'s Bridge over the Main Channel on this section. During this time the panel posts were erected and the braces set. Riveting remains to be done, portal and wind bracing is yet to be placed and track stringers and ties are yet to be laid. The contract is fully three-fourths completed. Work continued on the Santa Fe embankment through a part of January and a few days in February; 5,100 cubic yards were placed in embankment and 1,200 cubic yards were excavated in front of the north abutment of the highway bridge. These items were vouchered during the month. A voucher for $85.88 was issued on the 28th of the month to the A., T. & S. F. Ry. Co. for sundry expenses in connection with this bridge.

With the exception of five days, work was carried on throughout the month on the Lemont Road Bridge over the Main Channel. The bridge floors are laid and the greater portion of the work is done. The lock seat in the wall, the roller seats and the cog gear remain unfinished. On the 3d of the month a voucher for $8,994.00 was issued to C. L. Strobel on this account.

Section 12—Excavation for the foundations for the center pier and west abutment for the Romeo Road Bridge was begun on the 20th and 22nd of the month, respectively, and continued the balance of the month. Only a smal

amount of work was done up to the end of the month. On the 3d a voucher for $8,994.00 was issued to C. L. Strobel, contractor for the superstructure, for having delivered the entire iron work at the site of erection.

Section 15, Bear Trap Dam—A small amount of work was done during the month in placing gates and machinery for the foundations. Work on the superstructure has been carried on rapidly. Two gangs of riveters were employed; the iron work of the dam proper has been assembled and the field riveting of the down stream leaf was nearly completed. Considerable time was spent in the precise adjustment of the fixed hinge and foundations of operating mechanism.

Section 16—On account of the extreme cold weather the placing of concrete for the substructure of the Wire Mills Road Bridge was delayed until the 14th of the month, when it was continued to the 25th and completed. The quantities vouchered for the month on this account were as follows: Excavation of old masonry, 700 cubic yards; Portland cement concrete, 190 cubic yards. Besides these quantities the contractors for this work were credited with $150.00 for raising one span of the bridge.

Excavation for the foundations for the Lockport Road Bridge was begun on January 26th and continued with various intervals until the 21st of February. At this latter date the excavation was completed with the exception of the east abutment. The laying of concrete was begun on the 3rd of the month, but owing to the cold weather was discontinued until the 15th, when it was again resumed and continued throughout the month. The west pier was finished on the 16th. The west abutment was started on the 20th and at the end of the month was about two thirds completed. The quantities vouchered for the month on account of this bridge are as follows: Excavation, 334 cubic yards; Portland cement concrete, 227 cubic yards. A voucher for $14.00 was issued to P. T. Dunn & Co. during the month for lighting the Lockport temporary road on this section.

Section 17—The extreme cold weather prevented active work during a large part of the month. 2,100 cubic yards of earth was excavated from the new river channel by the following methods: 300 cubic yards by wheel scraper force; 1,500 cubic yards by wagon gangs, and 300 cubic yards by wheelbarrow men. About 3,600 cubic yards of solid rock were excavated and disposed of as follows: 5,700 cubic yards by steam derrick, removed to spoil bank by locomotives and five-yard dump cars; 4,600 cubic yards by steam shovel; about 6,600 cubic yards by rock gangs, removed in trains of one-yard cars operated by horses and incline hoists; and 1,700 cubic yards by wagons and wheelbarrow forces. Work on the Mill Street ditch was prosecuted, and about one-half of the work was completed. About 500 cubic yards were excavated on the Tail Race on this section.

Section 18—Work on this section was prosecuted at various points throughout the month. The work of building cross-cribs and coffer dams at Lock No. 5 was completed in the latter part of January. Excavation for the material at this same lock and for protection wall and conduit south and east of the lock was begun. Concrete work on Lock No. 5 was started on the 17th, and continued until the 22d of the month. The building of coffer-dam cribs at the Guard Lock began on the 7th, and continued throughout the month. A small amount of material was excavated on the new river channel below Jefferson Street. Credits were given during the month for finished work on construction of sewer, and for work on middle levee south of Jefferson Street. A voucher for $9,531.72 was issued to these contractors during the month.

Pumping Plant—One pump ran continuously throughout the month; from the 19th to the 20th, and from the 24th to the 26th, both pumps were in operation. On the 9th of the month, fittings on No. 1 and No. 3 boilers froze and burst, and on the 11th the west boiler feed pump also burst, rendering it entirely useless, and the entire plant dependent upon the one remaining feed pump. The elevation of water at the end of the month was -28.65, being 1.15 feet above grade.

DIVISION OF DRAFTING AND DESIGNING.

The regular platting was continued on the contour maps between Lockport and Lemont; on the 50-feet scale maps of the North Branch of the Chicago River, and on the atlas of the right of way.

The following drawings, etc., were made: Plan and details of sluice gates below Dam No. 1, Joliet; plan and description of lots to be acquired from the C., R. I. & P. R. R. Co. at Joliet; plan of a sixty-six foot subway at Stephens Street, Lemont; plan and profile of water power channel from the Regulating

Works to the end of Section 17; plan of temporary gate at Dam No. 1, Joliet; plan of Stephens Street, Lemont, showing grade crossing, and a plan of a part of Joliet, showing the alignment of Section 18 and right of way.

Work was completed on the plans for the Jefferson Street Bridge and the Cass Street Bridge at Joliet; some time was spent in designing a temporary roadway around the site of the new bridge at Jefferson Street, Joliet; work was again taken up on the plans for the C. R. I. & P. R. R. Co.'s Bridge at Joliet, and for the temporary bridge of this company at that point. Considerable time was devoted to the plans for the change in the Canal Street Bridge, but the work for this change was again abandoned; some time was also spent in checking the shop drawings for the Lockport Road and Wire Mills Road Bridges.

Detail work on the plans for the By-Pass in the Chicago River and the Bear Trap Dam was continued; borings at the Taylor Street Viaduct of the Chicago River were completed and samples taken; some time was devoted to plans for the work through Joliet; the testing of sand and cement for use in the construction work was continued, as was also the work of preparing record photographs and the maintenance of water gauges; some time was given to hydraulic data pertaining to the Chicago and Desplaines Rivers and to Lake Michigan; the Thirty-ninth Street intercepting sewer, which is being built by the City of Chicago, has been inspected, as has also the entire work of construction of the Sanitary District.

DIVISION OF RECORDS.

The work of checking the construction detail sheets was carried on as usual. The tabulated statements showing the condition of contracts to March 1, 1899, together with the financial statement to that date, were completed. Some time was spent on the forthcoming annual report of this department for 1898. The books of this department have been kept, all correspondence has been carried on, pay rolls have been issued, letters and documents have been filed, and all other clerical work has been carried on.

I estimate the expenses of this department for the month of March will be $175,000.00.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,

Chief Engineer."

SANITARY DISTRICT OF CHICAGO—ENGINEERING DEPARTMENT.

CLASSIFIED STATEMENT OF EXPENDITURES DURING THE MONTH OF FEBRUARY, 1899.

Classification.	Engineering Expenses.			Construction.	Total to Date.	
	Salaries.	Supplies, Etc.	Total.		Eng. Expenses.	Construction
Preliminary Sundries					$120,633 75	
Locating Route Main Channel					32,222 94	
Borings and Test Pits	$ 62 50	$ 607 27	$ 669 77		18,864 71	
Maps and Plans for General Use of Sanitary District	234 25	54 66	288 91		53,231 96	
Chicago River Survey	159 60	75	160 35		63,676 85	
Chicago River Improvement	1,069 04	163 65	1,232 69	$ 7,224 88	22,198 12	$ 148,299 98
Right of Way	253 60	38 94	292 54		37,072 30	
Flood Measurements	54 43	24 15	78 58		26,605 09	
Disposal Works and Joliet Project	2,466 73	229 96	2,696 69	25,646 60	85,877 79	436,639 30
Regular Construction—Main Channel and River Diversion	1,627 56	171 55	1,799 11	72,189 36	562,270 38	18,357,992 98
Extra Work—Main Channel					31 33	63,618 63
Extra Work—River Diversion					9,723 42	334,304 74
Levees, Embankments, etc.					1,022 49	193,177 19
Spillway					1,754 91	20,518 41
Wire Mills Road Temporary Bridge over Main Channel, Sec. 16						1,500 00
Wire Mills Road Permanent Bridge over Main Channel, Sec. 16	166 98	32 08	199 06	1,402 62	912 10	8,917 37
Lockport Temporary Roadway over Main Channel, Sec. 16				14 00		1,205 23
Lockport Road Permanent Bridge over Main Channel, Sec. 16	141 33	31 28	172 61	1,672 69	546 98	1,672 69
Romeo Road Permanent Bridge over Main Channel, Sec. 12	12 83	9 79	22 62	8,994 00	750 72	9,054 00
Romeo Road Temporary Bridge, over Main Channel, Sec. 12						1,120 78
Work Account Western Stone Company's Quarry No. 5, Sec. 10						8,865 65
Western Stone Company's Permanent Bridge over Desplaines River, Sec. 10					1,157 05	15,983 63
Western Stone Company's Temp. Bridge over Main Channel, Sec. 9						1,012 30
Lemont Road Permanent Bridge over Main Channel, Sec. 8	22 90	40 08	62 98	8,994 00	1,066 79	15,231 39

SANITARY DISTRICT OF CHICAGO—ENGINEERING DEPARTMENT—*Continued.*

CLASSIFIED STATEMENT OF EXPENDITURES DURING THE MONTH OF JANUARY, 1899.

Classification.	*Engineering Expenses.*			Construction.	*Total to Date.*	
	Salaries.	Supplies, Etc.	Total.		Eng. Expenses.	Construction
Lemont Road Temporary Bridge over Main Channel, Sec. 8	.....	.....	.....	.....	.....	$ 1,115 09
Lemont Road Permanent Bridge over Desplaines River, Sec. 8	.....	.....	.....	.....	$ 985 66	22,329 89
A., T. & S. Fe Ry. Co.'s Temporary Bridge over Desplaines River, Sec. 8	.....	.....	.....	.....	770 72	18,738 80
A., T. & S. Fe Ry. Co.'s Permanent Bridge over Desplaines River, Sec. 8	.....	.....	.....	.....	3,222 77	26,574 06
A., T. & S. Fe Ry. Co.'s Permanent Bridge over Main Channel and track deviation, Sec. 8	$ 85 31	$ 52 04	$ 137 35	$ 1,309 13	4,443 03	69,604 26
Willow Springs Road Temporary Bridge over Main Channel, Sec. 1	.....	.....	.....	.....	9 00	1,987 00
Willow Springs Road Permanent Bridge over Main Channel, Sec. 1	25 00	14 28	39 28	.....	1,147 76	16,972 52
Mt. Forest Foot Bridge over Illinois and Michigan Canal, Sec. A	.....	.....	.....	.....	32 17	.....
C. T. T. R. R. Co.'s Temporary Bridge over Main Channel, Sec. E	.....	4 00	4 00	.....	502 42	7,227 12
C. T. T. R. R. Co.'s Permanent Bridge over Main Channel, Sec. E	40 00	.....	40 00	1,519 69	3,423 32	50,981 06
C. T. T. R. R. Co.'s Temporary Bridge over Desplaines River, Sec. E	30 00	4 00	34 00	107 87	354 00	3,461 27
C. T. T. R. R. Co.'s Permanent Bridge over Desplaines River, Sec. E	100 00	5 00	105 00	3,293 10	873 09	3,353 10
Lyons-Summit Road Temporary Bridge over Main Channel, Sec. E	.....	.....	.....	.....	839 05	5,649 52
Lyons-Summit Road Permanent Bridge over Main Channel, Sec. F	110 00	8 00	118 00	3,746 58	1,863 38	17,712 52
Lyons-Summit Road Temporary Bridge over Desplaines River, Sec. E	.....	.....	.....	.....	40 00	.....
Lyons-Summit Road Permanent Bridge over Desplaines River, Sec. E	60 00	.....	60 00	.....	1,412 12	12,830 82
A., T. & S. Fe Ry. Co.'s Permanent Bridge over Desplaines River, Sec. F	.....	.....	.....	.....	891 45	.....
A., T. & S. Fe Ry. Co.'s Temporary Bridge over Main Channel, Sec. G	.....	.....	.....	.....	7 00	.....
A., T. & S. Fe Ry. Co.'s Permanent Bridge over Main Channel and track deviation, Sec. G	30 00	344 93	374 93	20,728 21	5,458 96	103,840 96
C. & W. I. Belt Ry's Temporary Bridge over Main Channel, Sec. K	140 00	.....	140 00	871 64	240 00	988 64
C. & W. I. Belt Ry's Permanent Bridge over Main Channel, Sec. K	.....	1,513 70	1,513 70	.....	2,829 69	.....
A., T. & S. Fe Ry. Co.'s Temporary Bridge over Main Channel, Sec. N	.....	.....	.....	.....	428 69	3,444 78
S. Fe Ry. Co.'s Permanent Bridge over Main Channel, Sec. N	50 00	20 00	70 00	.....	4,684 78	60,312 88
Izie Avenue Temporary Roadway over Main Channel, Sec. N	.....	.....	.....	.....	512 15	1,067 72

[illegible] Permanent Bridge over Main Channel, Sec. N.	.....	87 74	87 74	.....	3,197 20	34,147 09
C., M. & N. R. R. Co.'s Bridge over M. C. and Kedzie Av. viaduct, and track deviation, Sec. N.	100 00	32 50	132 50	.....	6,916 85	153,368 58
[illegible] Temporary Bridges over Main Channel, Sec. O.	.....	.....	.....	.....	1,557 97	8,659 76
Southwest Boulevard Permanent Bridge over Main Channel, Sec. O.	50 00	175 67	225 67	30,961 83	11,612 35	124,836 71
Pan Handle R. R. Co.'s Temporary Bridges over Main Channel, Sec. O.	80 00	1 75	81 75	1,626 76	3,423 94	45,041 90
Pan Handle R. R. Co.'s Permanent Bridge over Main Channel, Sec. O.	122 00	15 51	137 51	.....	12,544 95	57,798 20
Canal Street Approach Span, Chicago River	32 00	.....	32 00	.....	32 00	.....
Taylor Street Permanent Bridge over Chicago River	.....	30 23	30 23	.....	30 23	4,222 22
C. T. T. R. R. Co.'s Permanent Bridge over Chicago River	50 00	53 00	103 00	.....	103 00	8,444 45
E. J. & E. R. R. Co.'s Permanent Bridge between Secs. 16 and 17	.....	.....	.....	.....	1,653 94	41,984 62
Tow Path Permanent Bridge, Sec. 17	.....	96	96	.....	9 96	.....
Jefferson Street Temporary Bridge, Sec. 18	88 00	.....	88 00	.....	88 00	.....
Jefferson Street Permanent Bridge, Sec. 18	69 50	32 50	102 00	.....	640 67	.....
Cass Street Permanent Bridge, Sec. 18	69 50	32 50	102 00	.....	695 21	.....
C., R. I & P. R. R. Co's. Temporary Bridge, Sec. 18	79 00	.....	79 00	.....	79 00	.....
C., R. I. & P. R. R. Co.'s Permanent Bridge, Sec. 18	132 00	54	132 54	.....	662 37	.....
Moving and Repairing Bridges	.....	.....	.....	.....	614 88	8,341 44
Building Romeo Highway, Sec. 12	.....	.....	.....	.....	106 34	1,732 72
Saving of Building Sand	.....	.....	.....	.....	.....	781 63
Mortar, Sand and Cement Tests	330 34	49 45	379 79	.....	32,319 73	.....
Saving of Dimension Stone	.....	.....	.....	.....	.....	11,233 20
Erosion Tests	.....	.....	.....	.....	1,496 75	.....
Temporary Sanitary Relief	.....	.....	.....	.....	237 60	.....
Photographs of Works	125 00	32 93	157 93	.....	9,239 88	.....
Public Reports	.....	.....	.....	.....	3,580 16	.....
Remeasurement of Main Channel	.....	.....	.....	.....	5,283 82	.....
Effect of Main Channel Water on Lake Levels	.....	.....	.....	.....	1,798 38	.....
General Account	.....	.....	.....	.....	71,947 23	.....
Totals	$ 8,269 40	$ 3,915 39	$12,184 79	$190,302 96	$1,244,625 39	$20,542,898 50

VALUES— STATEMENT SHOWING CONDITION OF

Designation.	Amount earned during Feb., 1899. Main Channel.	Bridges.	General.	Total.	Amount earned to date. Main Channel.	River Diversion.	Bridges.	General.
Chicago River Imp'ment	$ 7,475 13			$ 7,475 13	$ 167,453 13			
O	8,482 76	$ 1,626 76		10,109 52	341,097 87		$ 63,236 81	
N					200,671 52		3,444 78	
M					158,015 06			
L					217,287 06			
K		871 64		871 64	287,299 54		988 64	
I					289,846 00			
H					290,099 46			
G					387,701 88			
F	4,425 68			4,425 68	341,404 40	$ 75,627 73		
E	5,700 00	107 87		5,807 87	698,419 34	29,091 91	15,046 41	$ 260 0
D					592,039 29	2,880 54		
C					443,342 59	40,135 18		781 6
B					438,986 42	59,451 34		150 0
A					801,584 08	115,741 73		
1					1,210,660 37	143,908 29	1,987 00	30 0
2					877,695 00	63,190 86		90 0
3					840,952 93	338 42		
4					975,248 98	83,304 43		85 2
5					749,207 28	6,653 64		
6					686,282 00	55,911 37		
7					722,544 74	66,193 19		8,758 6
8					888,834 43	89,683 90	19,853 89	2,580 6
9					794,838 28	23,573 72	1,012 30	
10					921,454 79	78,729 58		8,952 3
11					797,717 50	43,854 42		
12					837,660 69	21,768 52	1,120 78	
13					819,388 19			
14					931,457 10			
15					551,915 85	117 61		
16	14 00			14 00	38,645 43		1,500 00	
17	18,417 00			18,417 00	138,222 21			
18	10,893 40			10,893 40	33,170 78			
Disposal Wks. at Lockp't					243,579 25			
Repairing I. & M. Canal								18,052
Van Buren St. Approach Span, Chicago River								
Taylor St. Br. over Chicago River							4,222 22	
C. T. T. R. R. Co.'s Br. over Chicago River		30,961 83		30,961 83			8,444 45	
S. W. Blvd. Br., over M. C., Sec. O							128,998 18	
Pan Handle Br., over M. C., Sec. O							58,345 64	
C., M. & N. R. R. Co.'s Br., over M. C., Sec. N							143,729 54	
C., M. & N. R. R. Co.'s Br., over Kedzie Av., Sec. N							13,046 62	
Kedzie Av. Br., over M. C., Sec. N							34,404 78	
A., T. & S. F. R. R. Co.'s Br., over M. C., Sec. N.							61,889 61	
A., T. & S. F. R. R. Co.'s Br., over M. C., Sec. G.		20,728 21		20,728 21			102,264 23	
A., T. & S. F. R. R. Co.'s Br., over D. R., Sec. F.								
Lyons-Summit Road Br., over D. R., Sec. E							12,978 77	
Lyons-Summit Road Br., over M. C., Sec. E		4,281 80		4,281 80			19,285 75	
C. T. T. R. R. Co.'s Br., over M. C., Sec. E		1,519 69		1,519 69			50,639 8	
C. T. T. R. R. Co.'s Br., over D. R., Sec. E		3,293 10		3,293 10			3,743 7	
Willow Spgs. Highway Br., over M. C., Sec. 1							16,972 5	
A., T. & S. F. R. R. Co.'s Br., over M. C., Sec. 8.							72,099 4	
A., T. & S. F. R. R. Co.'s Br., over D. R., Sec. 8.							26,924 0	
Lemont Highway Br., over M. C., Sec. 8		8,994 00		8,994 00			15,231 2	
Lemont Highway Br., over D. R., Sec. 8		1,483 88		1,483 88			22,329 5	
Western Stone Co.'s Br., over D. R., Sec. 10							15,983 6	

CONSTRUCTION CONTRACTS, MARCH 1, 1899.

Total.	Amount Paid to Date.	REMAINING TO BE EARNED.			REMAINING TO BE PAID ON VOUCHERS.		
		Main Channel.	Bridges.	Total.	Retained Percentages.	Unpaid Vouchers.	Total.
$ 167,453 13	$ 141,075 10	$ 150,077 06	.....	$ 150,077 06	$ 19,153 15	$ 7,224 88	$ 26,378 03
404,334 68	352,648 27	40,287 38	.....	40,287 38	.....	51,686 41	51,686 41
204,116 30	179,133 61	56,322 40	.....	56,322 40	24,982 69	.....	24,982 69
158,015 06	158,015 06	.....	.....	.....	.....	.....	.....
217,287 06	217,287 06	819 32	.....	819 32	.....	.....	.....
288,288 18	287,640 54	7,888 25	.....	7,888 25	.....	647 64	647 64
289,846 00	289,846 00	.....	.....	.....	.....	.....	.....
290,099 46	290,099 46	28,129 13	.....	28,129 13	.....	.....	.....
387,701 88	387,537 38	11,001 20	.....	11,001 20	164 50	.....	164 50
417,032 13	375,082 00	1,918 34	.....	1,918 34	34,103 38	7,846 75	41,950 13
742,817 66	644,587 78	52,492 02	.....	52,492 02	90,592 72	7,637 16	98,229 88
594,919 83	594,919 83	.....	.....	.....	.....	.....	.....
484,259 40	484,259 40	.....	.....	.....	.....	.....	.....
498,587 76	498,587 76	.....	.....	.....	.....	.....	.....
917,325 81	917,325 81	.....	.....	.....	.....	.....	.....
1,356,585 66	1,349,690 00	.....	.....	.....	6,179 83	715 83	6,895 66
940,975 86	940,975 86	.....	.....	.....	.....	.....	.....
841,291 35	841,291 35	.....	.....	.....	.....	.....	.....
1,058,638 66	1,058,638 66	.....	.....	.....	.....	.....	.....
755,860 92	755,860 92	.....	.....	.....	.....	.....	.....
742,193 37	742,193 37	.....	.....	.....	.....	.....	.....
797,495 93	797,495 93	.....	.....	.....	.....	.....	.....
1,000,952 28	1,000,637 28	9,942 66	.....	9,942 66	315 00	.....	315 00
819,424 30	819,424 30	.....	.....	.....	.....	.....	.....
1,009,136 70	1,009,136 70	.....	.....	.....	.....	.....	.....
841,571 92	841,571 92	.....	.....	.....	.....	.....	.....
860,549 99	860,549 99	.....	.....	.....	.....	.....	.....
819,388 19	819,388 19	.....	.....	.....	.....	.....	.....
931,457 10	931,457 10	.....	.....	.....	.....	.....	.....
552,033 46	552,033 46	.....	.....	.....	.....	.....	.....
40,145 23	35,451 23	26,910 00	.....	26,910 00	4,680 00	14 00	4,694 00
138,222 21	106,117 33	159,459 10	.....	159,459 10	15,990 00	16,114 88	32,104 88
33,170 78	19,507 23	117,585 00	.....	117,585 00	4,131 83	9,531 72	13,663 55
243,579 25	232,190 05	8,814 00	.....	8,814 00	11,389 20	.....	11,389 20
18,052 85	18,052 85	.....	.....	.....	.....	.....	.....
.....	.....	.....	$19,495 87	19,495 87	.....	.....	.....
4,222 22	4,222 22	.....	8,444 45	8,444 45	.....	.....	.....
8,444 45	8,444 45	.....	16,888 88	16,888 88	.....	.....	.....
128,998 18	124,836 71	.....	23,940 61	23,940 61	4,161 47	.....	4,161 47
58,345 64	58,345 64	.....	355,670 24	355,670 24	.....	.....	.....
143,729 54	143,729 54	.....	13,465 60	13,465 60	.....	.....	.....
13,046 62	13,046 62	.....	.....	.....	.....	.....	.....
34,404 78	34,404 78	.....	8,526 00	8,526 00	.....	.....	.....
61,889 61	61,889 61	.....	7,286 54	7,286 54	.....	.....	.....
102,264 23	81,536 02	.....	.....	.....	.....	20,728 21	20,728 21
.....	.....	.....	19,321 80	19,321 80	.....	.....	.....
12,978 77	12,830 82	.....	.....	.....	147 95	.....	147 95
19,285 75	13,905 94	.....	18,611 65	18,611 65	1,573 23	3,806 58	5,379 81
50,639 81	49,120 19	.....	.....	.....	.....	1,519 69	1,519 69
3,743 10	3,634 35	.....	14,428 65	14,428 65	48 75	60 00	108 75
16,972 52	16,912 52	.....	5,906 00	5,906 00	.....	60 00	60 00
72,099 48	68,539 26	.....	35,571 30	35,571 30	2,251 09	1,309 13	3,560 22
26,924 06	26,574 06	.....	—4,962 03	—4,962 03	350 00	.....	350 00
15,231 39	15,171 39	.....	5,887 35	5,887 35	.....	60 00	60 00
22,329 89	22,329 89	.....	.....	.....	.....	.....	.....
15,983 63	15,983 63	.....	.....	.....	.....	.....	.....

VALUES— STATEMENT SHOWING CONDITION OF

Designation.	Amount earned during Feb., 1899.				Amount earned to date.			
	Main Channel.	Bridges.	General.	Total.	Main Channel.	River Diversion.	Bridges.	General.
Romeo Highway Br. over M. C., Sec. 12	.....	$ 8,994 00	.....	$ 8,994 00	.....	.....	$ 9,054 00	.....
Lockport Highway Br. over M. C., Sec. 16	.....	1,911 65	.....	1,911 65	.....	.....	1,911 65	.....
Wire Mills Rd. Br., over M. C., Sec. 16	.....	1,603 00	.....	1,603 00	.....	.....	4,477 00	.....
E., J. & E. R. R. Co.'s Br., N. of Joliet	.....	.....	.....	.....	.....	.....	41,984 62	.....
Crib work at Joliet	.....	.....	.....	.....	.....	.....	.....	$32,140 80
Totals	$55,407 97	$86,377 43	.....	141,785 40	$ 18,714,723 24	$1,000,156 38	$977,151 55	$71,881 01

CONSTRUCTION CONTRACTS, MARCH 1, 1899—*Continued.*

Total.	Amount Paid to Date.	REMAINING TO BE EARNED.			REMAINING TO BE PAID ON VOUCHERS.		
		Main Channel.	Bridges.	Total.	Retained Percentages.	Unpaid Vouchers.	Total.
$ 9,054 00	$ 8,994 00	.....	$ 15,655 75	$ 15,655 75	.....	$ 60 00	$ 60 00
1,911 65	.....	.....	12,565 35	12,565 35	$ 238 96	1,672 69	1,911 65
4,477 00	2,514 75	.....	10,284 30	10,284 30	559 63	1,402 62	1,962 25
41,984 62	41,984 62	.....	.....	.....	.....	.....	.....
32,140 89	32,140 89	.....	.....	.....	.....	.....	.....
$ 20,763,912 18	$20,410,800 61	$671,645 86	$586,988 31	$1,258,634 17	$221,013 88	$182,098 19	$353,111 57

QUANTITIES— STATEMENT SHOWING CONDITION OF CON

DESIGNATION.	AMOUNT DONE DURING FEBRUARY, 1899.				TOTAL DONE TO		
	Main Channel.			Masonry and Concr't. Cu. Yds.	*Main Channel.*		
	Glacial Drift. Cu. Yds	Solid Rock. Cu. Yds	Piles Lineal Feet.		Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds.	Retaining Wall. Cu. Yds.
Chicago River Improvement	800	.....	.....	223	628,400	.....	.....
O	41,156	.....	.....	.....	1,630,512	.....	.....
N	.....	.....	.....	.....	870,429	.....	.....
M	.....	.....	.....	.....	728,180	.....	.....
L	.....	.....	.....	.....	1,102,980	.....	.....
K	.....	.....	.....	.....	1,149,081	.....	.....
I	.....	.....	.....	.....	1,159,384	.....	.....
H	.....	.....	.....	.....	997,014	.....	.....
G	.....	.....	.....	.....	1,856,614	.....	.....
F	8,684	686	.....	.....	1,093,047	37,448	.....
E	5,000	3,000	.....	.....	1,808,861	175,175	.....
D	.....	.....	.....	.....	1,934,890	87,030	.....
C	.....	.....	.....	.....	1,881,545	.....	.....
B	.....	.....	.....	.....	1,570,036	15,586	.....
A	.....	.....	.....	.....	2,560,648	13,312	.....
1	.....	.....	.....	.....	1,282,267	554,326	68,256
2	.....	.....	.....	.....	724,905	483,750	38,506
3	.....	.....	.....	.....	425,705	760,778	14,039
4	.....	.....	.....	.....	1,096,746	262,428	68,169
5	.....	.....	.....	.....	952,526	378,609	56,059.1
6	.....	.....	.....	.....	683,248	549,355	30,361.7
7	.....	.....	.....	.....	181,721	890,939	6,179.9
8	.....	.....	.....	.....	50,170	1,145,252.1	2,874.9
9	.....	.....	.....	.....	76,692	1,003,769	.....
10	.....	.....	.....	.....	31,743	1,141,890	.....
11	.....	.....	.....	.....	44,021	989,711	.....
12	.....	.....	.....	.....	44,030	998,709	9,286.94
13	.....	.....	.....	.....	33,810	1,033,665	10,838
14	.....	.....	.....	.....	380,165	1,022,796	23,567.8
15	.....	.....	.....	.....	35,324	647,039	44,811.2
16	.....	.....	.....	.....	.....	96,000	.....
17	2,600	18,600	.....	.....	84,800	145,600	.....
18	3,200	.....	.....	200	74,300	.....	.....
Disposal Works at Lockport	.....	.....	.....	.....	.....	8,538	.....
Van Buren St. App. Span, Chicago R.	.....	.....	.....	.....	.....	.....	.....
S. W. Blvd. Bridge over M. C., Sec. O.	.....	.....	.....	.....	9,873.5	.....	.....
Panhandle Bridge over M. C., Sec. O.	.....	.....	.....	.....	.....	.....	.....
C., M. & N. R. R Co.'s Bridge over Main Channel, Sec. N.	.....	.....	.....	.....	17,849	.....	.....
C., M. & N. R. R. Co.'s Bridge over Kedzie Avenue, Sec. N.	.....	.....	.....	.....	2,869	.....	.....
Kedzie Avenue Bridge over Main Channel, Sec. N.	.....	.....	.....	.....	7,101	.....	.....
A., T. & S. F. R. R. Co.'s Bridge over Main Channel, Sec. N.	.....	.....	.....	.....	7,445	.....	.....
A., T. & S. F. R. R. Co.'s Bridge over Main Channel, Sec. G.	.....	.....	.....	.....	85,253	.....	.....
Lyons-Summit Road Bridge over Desplaines River, Sec. E.	.....	.....	.....	.....	5,557	.....	.....
Lyons-Summit Road Bridge over Main Channel, Sec. E.	.....	.....	.....	509	2,266	.....	.....
C., T. T. R. R. Co.'s Bridge over Main Channel, Sec. E.	.....	.....	.....	.....	4,748.1	.....	.....
C., T. T. R.R. Co.'s Br. over Desplaines River, Sec. E.	.....	.....	.....	.....	600	.....	.....
Willow Springs Highway Bridge over Main Channel, Sec. 1	.....	.....	.....	.....	2,084	.....	.....
A., T. & S. F. R. R. Co.'s Bridge over Main Channel, Sec. 8	6,300	.....	.....	.....	98,315	1,020	.....
Lemont Highway Bridge over Main Channel, Sec. 8	.....	.....	.....	.....	2,006	202	.....
Romeo Highway Bridge over Main Channel, Sec. 12	.....	.....	.....	.....	.....	.....	.....
Lockport Highway Bridge over Main Channel, Sec. 16	.....	334	.....	227	.....	334	.....
Wire Mills Road Bridge over Main Channel, Sec. 16	.....	70	.....	190	.....	575	.....
E., J.& E. R.R.Co.'s Bridge, N. of Joliet	.....	.....	.....	.....	.....	.....	.....
Totals	67,740	22,690	.....	1,349	27,009,710.6	12,443,836.1	372,949.54

* Retaining Wall.

STRUCTION CONTRACTS MARCH 1, 1899.

DATE.				ESTIMATED REMAINING TO BE DONE.				PERCENTAGE COMPLETED.				
River Diversion.		Piles. Lineal Feet.	Masonry and Concr't. Cu. Yds.	*Main Channel.*				Main Channel Excava'n	River Divers'n.	Ret. Wall	Masonry and Concr't	Piles.
Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds.			Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds	Piles & R. W.	Mas'y& Concr't Cu. Yds					
.....	.....	35,500	223	29,450	.....	.....	7,106	95.52	.....	3.04	.....	100
.....	.....	.....	.....	192,523	.....	.....	.....	89.44	.....	....	.....	.....
.....	.....	.....	.....	244,880	.....	.....	.....	77.80	.....	....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	....	.....	.....
.....	.....	.....	.....	4,159	.....	.....	.....	99.62	.....	...	.....	.....
.....	.....	.....	.....	31,553	.....	.....	.....	97.33	.....	....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	....	.....	.....
.....	.....	.....	.....	96,997	.....	.....	.....	91.22	.....	....	.....	.....
.....	.....	.....	.....	39,200	.....	.....	.....	97.18	.....	....	.....	.....
179,447	.....	.....	.....	.....	3,552	.....	.....	99.69	100	....	.....	.....
95,718	.....	.....	.....	20,173	24,825	.....	.....	97.88	100	....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	....	.....	.....
170,788	.....	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
212,486	.....	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
359,353	.....	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
174,655	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
119,234	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	100	.....	.....
106,808	17,857	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
12,256	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
118,647	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
97,917	43,102	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
57,902	99,399	.....	.....	.....	15,782	.....	.....	98.70	100	100	.....	.....
40,763	16,873	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
30,313	58,276	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
12,699	15,677	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
11,739	7,475	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	100	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	100	.....	.....
619	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
.....	.....	.....	.....	.....	69,000	.....	.....	58.18	.....	....	.....	.....
.....	.....	.....	.....	202,670	182,960	.....	.....	38.40	.....	....	.....	.....
.....	.....	.....	200	166,385	.....	*6,300	600	30.88	.....	25	.....	.....
.....	.....	.....	11,387.8	.....	1,567	.....	.....	100	.....	....	100	.....
.....	.....	.....	.....	2,800	.....	.....	784	00	.....	....	00	.....
.....	.....	10,813	4,421.94	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	.....	.....	23,000	.....	29,600	14,260	00	.....	....	00	00
.....	.....	5,948	4,236.77	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	.....	595.69	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	.....	2,886.84	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	4,544	2,489.36	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	5,748	2,929.03	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	.....	793.3	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	1,501	1,304	104	.....	2,499	680	95.61	.....	....	65.73	37.58
.....	.....	1,166.5	2,162.79	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	.....	.....	372	.....	1,000	652	61.73	.....	....	00	00
.....	.....	400	598.6	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	.....	817.07	29,785	.....	.....	.....	98.97	.....	....	100	.....
.....	.....	.....	433.36	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	.....	.....	.....	153	.....	1,082	00	.....	....	00	.....
.....	.....	.....	227	.....	.....	.....	233	100	.....	....	49.35	.....
.....	.....	.....	540	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	.....	1,041.84	.....	.....	.....	.....	.....	.....	....	100	.....
3,801.	258,659	65,620.5	37,288.39	1,084,091	297,839	33,099 *6,300	25,497	96.62	100	98.34	59.39	66.47

MONTHLY REPORT FROM CLERICAL DEPARTMENT.

The Clerk presented a report from the Clerical Department for the month of March, 1899, which was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, April 1, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I herewith submit the report of the Clerical Department for the month of March, 1899:

The total expenditure of the District for the month was $259,810.46, of which amount the entire sum was paid in 1899 Tax Levy Warrants. Of the 1899 Tax Levy Warrants issued, the sum of $945.25 was placed in the hands of the Treasurer, and regular warrants drawn in the aggregate for this amount against the same as per authority of the Board.

The total amount expended on account of, and charged to the Clerical Department during the month of March was $2,088.16 of which amount the sum of $2,066.66 was for salaries, and the sum of $21.50 for general office expenses.

There are no outstanding liabilities against the Clerical Department, and the expenditure for the present month will be about $1,000.

The total amount expended for account of, and charged to, the General Account during the month of March was $9,917.50, divided as follows:

Rent for March	$ 483 33
Expert Accountants	560 00
Advertising	248 00
Salaries	5,046 66
Steamboat	3,000 00
General expenses	205 10
Printing	374 41
Total	$9.917 50

The expenditure for the present month for the General Account will be about $3,000.

Of the total amount of 1896 Tax Levy Warrants issued, there is now outstanding the sum of $12,709.35; of the 1897 Tax Levy Warrants issued, there is now outstanding the sum of $15,119.00; of the 1898 Tax Levy Warrants issued, there is now outstanding the sum of $1,883,785.98, and of the 1899 Tax Levy Warrants, there is now outstanding the sum of $259,810.46.

The following is a tabulated statement of total expenditures for the month of March, 1899:

Account.	*1899 Tax Levy Warrants.*
Engineering Department	$ 19,325 94
Construction	212,314 70
Clerical Department	2,088 16
Law Department	6,161 01
Land	1,021 60
Treasury Department	333 32
General	9,917 50
Police Department	5,032 34
Maintenance	1,615 89
Emergency Fund, C. C. Gilbert, Attorney	2,000 00
Total	$259,810 46

Respectfully submitted,

(Signed) THOS. S. BELL,

Acting Clerk."

APPROVAL OF REDUCED BONDS ON CONTRACTS FOR SUBSTRUCTURE OF C., M. & N. BRIDGE NEAR EAST END OF SECTION N, AND SUBSTRUCTURE OF A., T. & S. F. BRIDGE AT WEST END OF SECTION N.

Mr. Carter, Chairman, presented, and the Clerk read, a report from the Committee on Finance, in regard to the acceptance of two bonds in the sum of one thousand dollars ($1,000.00) each, furnished by Messrs. McArthur Bros. Co. and Winston & Co., contractors jointly on the contract for the substructure of the C., M. &. N. Bridge near east end of Section N, and the A., T. & S. F. Bridge at west end of Section N, in lieu of the original bonds on said contracts, given by said contractors, and in accordance with the action of the Board at the meeting held January 18, 1899, (page 5431 of Proceedings), the report recommending that said bonds be accepted and approved by the Board and the surety on the original bonds released from further liability.

Mr Carter, seconded by Mr. Kelly moved that the report be adopted and the recommendations contained therein concurred in.

On roll call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Kelly, Mallette, Smyth and Wentersen—seven. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, April 17, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Your Committee on Finance herewith reports that bonds, in the penal sum of one thousand ($1,000) dollars each, have been executed by McArthur Brothers Company and Winston & Company for the bridge substructures of the Chicago, Madison & Northern Railroad Bridge near the east end of Section "N," and the Atchison, Topeka & Santa Fe Railway Bridge near the west end of Section "N" of the Main Channel, pursuant to the direction of the Board of Trustees, at the meeting of the Board, January 18, 1899, (page 5431 of Proceedings):

That the Committee has examined said bonds and advises that in its opinion the same are properly executed and that the surety upon each is sufficient.

It therefore recommends that said bonds be accepted and approved by the Board of Trustees and the surety on the original bonds released from further liability.

Respectfully submitted;

(Signed) Z. R. CARTER,
Chairman.
B. A. ECKHART,
FRANK WENTER,
THOMAS KELLY,
Committee on Finance."

(Accompanied by two bonds in duplicate.)

REPORT IN REFERENCE TO ACCEPTANCE OF VILLAGE ORDINANCE FOR STEPHENS STREET SUBWAY.

On behalf of the Committee on Engineering, Mr. Mallette presented, and the Clerk read, a report from that Committee, with reference to and accompanied by an ordinance of the Village of Lemont for the construction of a subway at Stephens Street, the report recommending that said ordinance be accepted by the Board.

Mr. Mallette, seconded by Mr. Smyth, moved that the report be adopted and the accompanying ordinance accepted by the Board.

On roll call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Kelly, Mallette, Smyth and Wenter—eight. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, April 17, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Your Committee herewith reports that it has very carefully considered the ordinance passed by the Village of Lemont for the construction of a subway at Stephens Street, and recommends that said ordinance be accepted by your Honorable Body.

We herewith attach said ordinance.

Respectfully submitted,

(Signed) THOMAS A. SMYTH,
Chairman.
J. P. MALLETTE,
B. A. ECKHART,
FRANK WENTER,
WM. BOLDENWECK,
Z. R. CARTER,
THOMAS KELLY,
J. C. BRADEN,
Committee on Engineering."

(Two enclosures.)

The following is

THE ORDINANCE OF THE VILLAGE OF LEMONT AND CLERK'S CERTIFICATE:

"*Be it ordained by the President and Board of Trustees of the Village of Lemont:*

SEC. 1. That, whereas, it is proposed by the Sanitary District of Chicago to excavate and construct a subway in, through, under and along that part of Stephens Street, in the Village of Lemont, in the County of Cook and State of Illinois, where the same is intersected by the railroad right of way and tracks of the Chicago, Santa Fe and California Railway Company; and,

WHEREAS. Said subway will tend to conserve the safety and convenience of the citizens of said village of and county in passing to and from points across the right of way of said railway company; and,

WHEREAS, The construction of said

subway will tend to further and aid the purposes for which the Sanitary District of Chicago was organized, permission and authority are hereby granted to said Sanitary District of Chicago to excavate and construct said subway to conform to the following schedule of said subway at the places designated, as follows:

SEC. 2. The depression of the streets shall not exceed 16 2-10 feet below the base of the rail of the tracks of the Chicago, Santa Fe and California Railroad at the proposed crossing of Stephens Street, making the elevation of floor of subway not less than 6 8-10 feet above Chicago city datum, and with a head room of not less than 14 feet. This level shall not extend beyond the north and south portals of subway. From this level the approaches shall extend on a grade of not to exceed 1 foot in 27 feet to a connection with the proposed new bridge across the Main Channel of the Sanitary Canal on north side of subway, and shall extend on a grade of not to exceed 1 foot in 33⅓ feet to a connection with the present surface of Stephens Street on the south side of subway; that the subway shall be 30 feet in width, and the approaches thereto shall be 46 feet in width, and both subway and approaches shall be macadamized to a depth of 18 inches, 12 inches of which shall be broken stone and 6 inches of fine crushed stone; the sizes to be designated by the President and Board of Trustees of the Village of Lemont; said Sanitary District shall also construct on each side of said subway a stone wall set three feet in the ground, three feet in thickness at the bottom and two feet in thickness at the top; said wall shall be surmounted with a coping having a height of not less than eight inches above the level of the ground; that no stone less than twelve inches in thickness shall be used in the construction of said subway and the retaining wall; Alpha Cement and good sharp sand shall be used in the construction of said retaining wall.

SEC. 3. Said Sanitary District of Chicago shall also construct on both sides of said subway, mentioned in Section 2 of this ordinance, subways for foot passengers, which shall have a headway of not less than eight feet below the top of subway. That said passages for foot passengers shall be six feet in width and shall have an iron railing of not less than three feet in height along the sides next to the subway mentioned. The sidewalks under said subway shall be connected with the sidewalks along Stephens Street by a walk six feet in width.

SEC. 4. The said Sanitary District of Chicago shall also construct side-ditches on both sides of Stephen Street; at the lowest point of subway shall be constructed a catch basin from which a sewer is to be built connecting with the Drainage Canal, of sufficient capacity to carry off the water.

SEC. 5. Said Stephens Street shall be kept open to traffic during the construction of said subway and the improvement of said street.

SEC. 6. The said Sanitary District of Chicago shall be held liable and shall indemnify the said Village of Lemont for any and all damages to the water main which is laid below the surface of said Stephens Street on the south side of the Chicago, Santa Fe & California Railroad, which damages may occur during or after the construction of said subway through exposure of said water main to frost or through any other causes.

SEC. 7. All work shall be done in accordance with the plans of said work now on file in the office of the Clerk of the Village of Lemont.

SEC. 8. The said Sanitary District of Chicago shall indemnify and save harmless the said Village of Lemont, in the County of Cook, from any and all damages to any person or persons or property occurring during the progress of said work, or arising out of the construction of said subway by said Sanitary District, for which said village or county would be legally liable; and in the event of an institution of a suit against the Village of Lemont by any person or persons for the recovery of any damage caused to any person or persons or property during the progress of said work, or arising out of the construction of said subway by the Sanitary District of Chicago, said Sanitary District shall, upon receipt of written notice of such suit served upon the President or Clerk of the Board of said Sanitary District by the Village Clerk of the Village of Lemont, intervene and defend such suit or action and pay and discharge any judgment, inclusive of all costs, that may be recovered in such suit or proceeding.

SEC. 9. This ordinance shall take effect and be in force from and after its acceptance by the Board of Trustees of the Sanitary District of Chicago.

"STATE OF ILLINOIS, }
County of Cook, } ss.
Village of Lemont. }

I, Nels A. Anderson, Village Clerk of the Village of Lemont, do hereby certify that the above and foregoing is a true copy of an ordinance entitled "Ordinance in regard to construction of a subway by the Sanitary District of Chicago, on Stephens Street, at the crossing of the Chicago, Santa Fe and California Railroad," adopted by the President and Board of Trustees of said village on the 12th day of April, A. D. 1899.

I further certify that the original ordinance, of which the foregoing is a copy, is on file in my office.

Witness my hand and the seal of said village, this 13th day of April, A. D. 1899.

(Signed) NELS A. ANDERSON,
[SEAL] *Village Clerk.*"

PAYMENT OF MAY INTEREST ON BONDS.

Under the head of new business, Mr. Carter presented, and seconded by Mr. Eckhart, moved the adoption of the following

ORDER:

"*Ordered*, That the Clerk be, and he hereby is, instructed to draw a warrant payable to the order of the Treasurer for the sum of thirty-five thousand ($35,000.00) dollars, to pay the semi-annual interest accruing May 1, 1899, on the balance of the first issue of bonds of the Sanitary District of Chicago outstanding, being one million four hundred thousand ($1,400,000.00) dollars at five per cent (5%) per annum, and that the Treasurer be and he hereby is authorized and directed to pay said semi-annual interest upon the proper presentation and cancellation of the interest coupons evidencing the same, such payment to be charged to its proper account."

On roll-call on the motion for the adoption of the order the vote stood: ...ays—Messrs. Boldenweck, Braden, ...rter, Eckhart, Kelly, Mallette, Smyth ...d Wenter—eight. Nays—none.

Upon this result the President de...ared the motion carried.

...YMENT OF RENTAL UNDER AGREE...ENT WITH PENNSYLVANIA COMPANY ...OR BY-PASS ALONG CHICAGO RIVER.

...r. Carter presented, and seconded by Mr. Braden, moved the adoption of the following

ORDER:

Ordered, That the President and Clerk of the District be and they are hereby authorized and directed to pay, upon the voucher of the Attorney of the District, to the Pennsylvania Company, operating the Pittsburgh, Fort Wayne and Chicago Railway, the sum of fifteen hundred ($1,500.00) dollars, said sum being the semi-annual payment of rent due May 1, A. D. 1899, pursuant to an agreement heretofore made with the Sanitary District of Chicago (page 4573 of Proceedings), said payment to be charged to the Land Account of the District.

On the motion for the adoption of the order the vote stood: Yeas — Messrs. Boldenweck, Braden, Carter, Eckhart, Kelly, Mallette, Smyth and Wenter—eight. Nays—None.

Upon this result the President declared the motion carried.

ORDER IN REFERENCE TO HIGHWAY AT ROMEOVILLE.

Mr. Smyth presented, and the Clerk read, an order authorizing and directing the President and Clerk to execute the necessary papers for the conveyance of certain real estate, for the purposes of a public highway at Romeoville, as set forth in the order; and also to release any and all claims for damages sustained by reason of the establishment or laying out of said highway.

Mr. Smith, seconded by Mr. Mallette, moved that the order be adopted.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Kelly, Mallette, Smyth and Wenter—eight. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE ORDER:

"*Ordered*, That the President and Clerk of the District be authorized and directed to execute, on behalf of the District, any deeds, releases or other instruments of conveyance which may be necessary, conveying, for the purposes of a public highway, according to the plat hereto attached, the real estate over which said public highway is to be laid out. Said highway is described as follows, the center line of said road:

Beginning at a point on the north line

of Section two (2), Township thirty-six (36) North, Range ten (10) East of the Third Principal Meridian, in Will County, Illinois, fifteen (15) feet distant in an easterly direction from the point of intersection of the east line of the right of way of the Chicago, Santa Fe & California Railway with said north line of said Section two (2); thence running southeasterly and parallel to said easterly right of way line for a distance of one hundred sixty-five (165) feet to a point of curve; thence on a curve to the right with a radius of forty (40) feet to a point of tangent; thence westerly on a line parallel to said north line of said Section two (2) to a point of curve; thence on a curve to the right with a radius of forty (40) feet to a point of tangent, said point of tangent being seventeen (17) feet distant from the westerly right of way line of the Chicago, Santa Fe & California Railway measured at right angles; thence northerly on a straight line to a point on said north line of said Section two (2), said point being fifteen (15) feet distant in a westerly direction from the point of intersection of the westerly right of way line of the Chicago, Santa Fe & California Railway with said north line of said Section two (2) and being the point of termination of said new road.

Said road to be thirty (30) feet wide in the clear, except on the west side of the right of way of the Chicago, Santa Fe & California Railway, where the width diminishes from thirty (30) feet at the point of tangent to twenty-six (26) feet at the point of termination and located in Will County, Illinois.

The President and Clerk are also further authorized and directed to release any and all claims for damages sustained by reason of the establishment or laying out of the said highway above mentioned."

(Accompanied by plat.)

ORDER IN REFERENCE TO LEASING OF DISTRICT LANDS.

Mr. Smyth presented, and seconded by Mr. Eckhart, moved the adoption of the following

ORDER:

"*Ordered*, That the President and Clerk of the District be authorized to enter into leases from year to year, for unoccupied lands of the Disirict, upon such terms and conditions as, in the discretion of the President, will best conserve the interests of the District, at not less than three ($3) dollars per acre per annum."

On roll-call on the motion for the adoption of the order the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Kelly, Mallette, Smyth and Wenter—eight. Nays—none.

Upon this result the President declared the motion carried.

SATURDAY CLOSING OF OFFICES.

Mr. Smyth presented, and seconded by Mr. Mallette, moved the adoption of the following

ORDER:

"*Ordered*, That the offices of the Sanitary District of Chicago be and the same are hereby ordered closed at twelve (12) o'clock noon on every Saturday from April 22 to September 30, 1899, both inclusive, and that a half-holiday be and the same is hereby extended to all the employes of said Sanitary District; and be it further

Ordered, That the Chief Engineer of said Sanitary District be and is hereby ordered, authorized and empowered to suspend the above order, so far as the same applies to employes in the field, whenever, in the judgment of said Chief Engineer, their services may be required, and in such case the Chief Engineer may substitute the equivalent of said Saturday half-holiday at such other times as the interest of the service may permit."

On roll-call on the motion for the adoption of the order the vote stood: Yeas—Messrs. Boldenweck, Carter, Eckhart, Kelly, Mallette, Smyth and Wenter—seven. Nays—none.

Upon this result the President declared the motion carried.

ADJOURNMENT.

On motion of Mr. Carter, seconded by Mr. Kelly, the Board then adjourned.

THOMAS S. BELL,
Acting Clerk.

PROCEEDINGS

—OF THE

BOARD OF TRUSTEES

—OF THE—

SANITARY DISTRICT OF CHICAGO.

APRIL 26, 1899.

OFFICIAL RECORD.

Published by authority of the Board of Trustees of the Sanitary District of Chicago.

REGULAR MEETING.

The four hundred and thirty-sixth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Wednesday, April 26, 1899, at 2 o'clock P. M.

On roll-call Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Smyth and Wenter—eight members, were present.

President Boldenweck then called the Board to order.

MINUTES.

The minutes of the regular meetings held April 12 and April 19, 1899, were approved as printed, on motion of Mr. Kelly, seconded by Mr. Carter.

*VOUCHERS.

The Clerk presented the following vouchers:

ENGINEERING DEPARTMENT.

Canal Commissioners (Lock 5, Joliet Inspectors)	$ 200 00

GENERAL ACCOUNT.

John F. Higgins (printing Proceedings, etc., March, 1899)	468 96
Total	$ 668 96

*To be paid by warrants, with interest coupons attached, drawn against the tax levy for the year 1899.

Mr. Carter, seconded by Mr. Wenter, moved that the vouchers as read and shown above be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Smyth and Wenter—eight. Nays—none.

Upon this result the President declared the motion carried.

REQUISITION.

The Clerk presented the following requisition:

No. 592, Engineering Department (quarterly supplies), $276.90.

Mr. Kelly, seconded by Mr. Braden, moved that requisition No. 592, as read and shown above, be allowed.

On roll call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart. Kelly, Smyth and Wenter—seven. Nays—none. Excused and not voting—Mr. Jones—one.

Upon this result the President declared the motion carried.

WEEKLY REPORT ON EMPLOYES.

The Clerk presented a report, in accordance with the Rules, showing the number of persons in the employ of the District for the week ending April 22, 1899, which was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, April 26, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I beg leave to report herewith the number of persons in the employ of the District for the week ending April 22, 1899, as the same have been reported to me:

Engineering department	77
Maintenance account	8
Clerical department	5
Law department	8
Treasury department	1
Police department	29
Telephone operator	1
Total employes	129

Respectfully submitted,

(Signed) THOS. S. BELL,

Acting Clerk."

REPORT TRANSMITTING REFUNDED COURT COSTS IN CASE OF DISTRICT VS. SCHUSTER ET AL.

The Clerk presented and read a report from the Attorney with reference to and accompanied by a certificate of deposit for $240.00 received for account of certain court costs heretofore taxed against, and paid by, the District in the case of the District vs. Schuster et al., the report recommending that the amount be deposited to the credit of the Law Department.

Mr. Eckhart, seconded by Mr. Jones, moved that the report be received, printed and the amount deposited with the Treasurer of the District.

The motion prevailed unanimously and it was so ordered.

The following is

THE REPORT:

"CHICAGO, April 26, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I have the honor herewith to transmit certificate of deposit No. 42,341 on the Will County National Bank of Joliet, in favor of Mr. P. C. Haley, attorney of the District at Joliet, and by him endorsed in blank, for the sum of two hundred and forty dollars ($240.00); said sum of two hundred and forty dollars ($240.00) having been heretofore taxed as costs against the District in the condemnation suit in Will County Circuit Court, entitled "Sanitary District of Chicago vs. Schuster et al," and refunded; the same having been previously paid as printer's fees, and proper receipts therefor presented on the part of the District. Mr. Haley collected the same on our behalf and I would recommend that the amount be deposited in the General account of the District and credited to the expense account of the Law Department.

Respectfully submitted,

(Signed) CHARLES C. GILBERT,

Attorney."

(Accompanied by check.)

MONTHLY REPORT FROM ENGINEERING DEPARTMENT.

The Clerk presented a report from the Engineering Department for the month of March, 1899, which, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, April 24, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I herewith transmit the report of the Engineering Department for the month of March, 1899, giving the detailed operations of the several divisions constituting the same.

The value of the construction work done was $180,514.22, divided as follows: Main Channel, $89,945.94; Bridges, $90,568.28. The Engineering expenses were $10,505.86, divided as follows: Salaries, $8,386.90; supplies, etc., $2,118.96. Details of the above figures are given in tabulated statements submitted herewith.

DIVISION OF CONSTRUCTION.

The weather during the month was rather unfavorable to good progress of the work. Rain or snow was recorded on twelve days and the temperature varied from 40° to 4° Fahrenheit.

Chicago River Improvement The work on the By Pass along the river was as follows: 1,800 cubic yards of excavation were taken out at Adams street by the same plant as was used during the last two months. The building of the west wall at this point was continued and 615 cubic yards of concrete were put in place. 62,200 ft. B. M. of grillage were used and 32,000 ft. B. M. of timber were used in the temporary roadway and coffer dam. The contractors did considerable pumping at Adams street occasioned by a leak under the center pier, but which caused no delay of the work. The dredging of the South Branch was commenced in the latter part of the month but not enough work was done to warrant the rendering of an estimate.

On the 24th of the month a voucher for $32,000 was issued to Griffiths & McDermott as a part payment on their contract for the erection of the superstructure for the By-Pass along the Chicago River.

On the 23rd a voucher for $12,666.66 was issued to the Scherzer Rolling Lift Bridge Company as part payment for the sale of this company's design for the Taylor street and the C. T. T. R. R. Co.'s bridges across the Chicago River.

On the 29th a final voucher for $12,666.67 was issued to the same company on this account.

Section "O"—On the 16th of the month a voucher for $37.08 was issued to A. T. Wilcox for work done in February repairing the scow under the Western avenue temporary bridge. The different railroad companies at the Campbell avenue crossing did more or less work on their respective tracks and temporary bridges. The following vouchers were drawn during the month on their account:

P., C., C. & St. L. Ry. Co.	$535.40
C. T. T. R. R. Co.	478 30
C. J. Ry. Co.	204 57

On the 28th a voucher for $6,000 was drawn by this department in favor of the I. C. R. R. Co. for permission to construct two temporary tracks on its land, to be used by the Pan Handle Company pending the construction of the eight-track bridge. The construction of two new trestles for the Pan Handle Company was begun on the 20th and continued to the end of the month.

Work on the superstructure of the Southwest Boulevard Bridge was continued and was practically completed, with the exception of the flooring, the laying of which was begun at the end of the month. On the 16th a voucher for $596.31 was issued to John Ries for filling with cinders the approaches to this bridge.

Section "N"—No excavation work was done on this Section. The contractors devoted some time to fixing up their tracks and getting ready to move their incline around to the south side of the channel.

With the exception of painting, the bridge of the C., M. & N. R. R. Co. over the Main Channel was completed on the 20th and a voucher for $12,832.99 was drawn in favor of the Toledo Bridge Company on this account.

Work continued throughout the month on the superstructure of the viaduct of the C., M. & N. R. R. Co. at Kedzie avenue, and three vouchers, aggregating $1,053.25 were issued to the Kelly-Atkinson Construction Company on this account.

The superstructure of the Kedzie avenue bridge across the Main channel was completed during the month with the exception of painting, and a voucher for $8,276.00 was issued to the King Bridge Company for work done on this account.

Work on the superstructure of the A., T. & S. F. Ry. Co.'s bridge was continued throughout the month.

Section "K"—Work on the temporary

trestle for the use of the Belt Railway was completed on the 30th. The vouchers issued on account of this work were as follows:

Geo. M. Huss.....$409.56
" " " 413.70
Continental Bolt and Iron Works 101.96

Section "I"—One of the Iron bridges used by Christie & Lowe on this section was dismantled and removed.

Section "G"—The work of ballasting and laying steel on the A., T. & S. F. Co. deviation was continued all the month and practically completed on the 29th. On the 16th a voucher for $4,587.51 was drawn in favor of the A., T. & S. F. Ry. Co. for labor and material furnished during January on account of this work.

Section "F"—The work on the substructure of the Summit-Lyons Road Bridge over the Main Channel was completed on the 24th, except painting. There is also a coffer dam to be removed. The following quantities were vouchered on this account: Timber in foundation, 328 ft. B. M.; piles delivered, 760 lineal feet; natural cement concrete, 244 cubic yards; Portland cement concrete, 45 cubic yards; masonry 422 cubic yards. The amount vouchered on this account is $4,967 55. The superstructure was begun on the 16th of the month and a voucher for $7,572.00 was issued on this account on the 17th.

A lot of 20 feet oak piles furnished for the substructure of the Lyons-Summit Road Bridge over the Main Channel, and not used, were loaded on a car and shipped to the Pan Handle crossing for use in the trestles undergoing construction at that point.

Section "E"—Rock excavation by Peteler car and traveling derrick plants was continued throughout the month. On the 27th a guy derrick was put to work on rock excavation at the east end of the section. All rock excavated was used in revetting slopes. The dry rubble masonry at the west end of the section around the abutments of the bridge of the C. T. T. R. R. Co., was completed on the 11th. The quantities vouchered for these contractors are as follows: Glacial drift, 7,871 cubic yards; solid rock, 12,243 cubic yards; revetment wall 22,514 cubic yards. The amount vouchered to these contractors was $18,235.06. The removal of the Merry-go-round plant was continued. Some bracing was done on the temporary trestle of the C. T. T. R. R. Co.

Word on the excavation for the abutments of the bridge of the C. T. T. R. R. Co. over the Desplaines River was taken up on the 13th, but was abandoned on the 18th on account of high water.

Section 1.—The work of the superstructure for the Willow Springs Road Bridge over the Main Channel was completed and accepted on the 25th. On the 24th a voucher for $5,746.00 was issued to C. L. Strobel on this account.

Section 8.—A gang of men was engaged in riveting iron work in place and laying ties on the superstructure of the A. T. & S. F. Ry. bridge over the Main Channel on this section. The bridge is practically completed. No material was placed in this Company's embankment during March; the only work done was the removal of the steam shovel to the north side of the channel preparatory to resuming work under the contract. On the 15th a voucher for $153.44 was issued to the A. T. & S. F. Ry. Co. for services of watchmen account of material piled along its tracks.

The work of the superstructure of the Lemont Road Bridge over the Main Channel was completed and accepted on the 25th. On the 24th a voucher for $5,746.00 was issued to C. L. Strobel on this account.

Section 12—The laying of concrete for the center pier of the Romeo Road Bridge was begun on the 8th and finished on the 17th, an average of eight laborers being employed. Masonry for the center pier was completed on the 27th. One steam derrick was used on the work and also one at the dock for handling stone. Excavation for the west abutment was completed on the 26th. The quantities vouchered on this account are as follows: Excavation, 900 cubic yards; Portland cement concrete, 140 cubic yards; masonry, 107 cubic yards. The values vouchered for payment on this account are $2,497.91.

Section 14. Pumping Plant—One pump was run continuously throughout the month, and on days that the height of the water would permit both pumps were run. Some necessary repairs were made on No. 2 and No. 3 boilers from the 27th to the 31st. The elevation of water on March 31st was—29,075, being .725 feet above grade.

Section 15—The contractors for the foundations for the Bear Trap Dam were engaged with a small force painting the operating mechanism and removing the

plant. The work on the superstructure has been carried on rapidly. The leaves of the dam and counterweight buckets have been completed. The quantities vouchered on account of the substructure are as follows: Concrete masonry—22.1 cubic yards; excavation, 1,000 cubic yards. A voucher for $1,680.38 was issued. On the 15th a voucher for $314.56 was issued to Christie & Lowe for extra work in connection with their contract for the superstructure.

Section 16—The laying of concrete for the east abutment of the Lockport Road Bridge was completed on the 14th, which practically finished the work of the substructure. The quantities vouchered on this account are as follows: Excavation, 20 cubic yards; Portland cement concrete, 200 cubic yards. A voucher for $1,283.75 was issued to these contractors during the month.

Section 17—Work on this section was greatly delayed on account of high water in the Desplaines River which resulted in flooding the new river channel. Three pumps were run in double shifts during the month. The plant used on the section consisted of one steam shovel, two locomotives, one derrick, five steam drills and numerous one and five-yard dump cars. The quantities vouchered on account of this work are as follows: Solid rock, 4,300 cubic yards; Tail race excavation, 2,360 cubic yards; raising tow-path retaining wall, 110 cubic yards. A voucher for $8,061.81 was issued to these contractors during the month.

Section 18—On account of floods in Desplaines River no work could be done on the new river channel through Joliet. Work was confined to reconstructing Lock No. 5 and protection wall to the conduit to supply Channahon level, and the removal of Guard Lock near Jefferson street. The excavation for Lock No. 5 was completed about the 15th. Concrete work was carried on with but little interruption. An average force of thirty-six men were employed daily and the work was finished on the 26th. Work on removal of Guard Lock was prosecuted for the greater portion of the month, part of the time in double shifts. Forces were also engaged in coffer dam construction at Lock No. 5 and the Guard Lock; in the construction of conduit and in laying concrete for protection wall. The quantities vouchered on account of this work are as follows: Excavation 900 cubic yards; Portland cement concrete, 1,507 cubic yards. A voucher for $16,912.88 was issued to these contractors.

Three vouchers for extra work were issued on this section as follows:

Chicago Bridge & Iron Co., steel plates for Lock No. 5	$427 20
Green's Dredging Co., piles for C. R. I. & P. Temp. Bridge	548 93
C. R. I. & P. Ry. Co., removing rails	63 70

DIVISION OF DRAFTING AND DESIGNING.

Platting was continued on the contour maps between Lockport and Lemont on the 50 feet scale maps of the North Branch of the Chicago River and on the Atlas of the right of way.

The following drawings, etc., were made: Maps of Will County showing right of way acquired; plan of Goerner land near Gary; cross-sections for temporary trestle at Pan Handle crossing; maps showing roads between Lockport and Lemont; maps showing temporary tracks at Pan Handle crossing; copies of Will county right of way sheets.

Work was continued on the plans of the temporary and permanent bridges at Joliet for the C., R. I. & P. R. R. Co. Some time was spent on the Cass street and Jefferson street bridges at Joliet, in making estimates for the quantities contained in same. Some time was also given to checking shop drawings for the By-pass.

Detail work on the plans for the By-pass and work along the Chicago River was continued and work on the plans of the Bear Trap Dam and Section 17 and 18 was carried on during the entire month.

The testing of sand and cement for use in construction work was continued as was also the work of preparing record photographs and the maintenance of water gauges. Some time was given to hydraulic work pertaining to the Chicago and Desplaines Rivers and to Lake Michigan. Inspection of all Sanitary District construction work was carried on during the entire month as was also the inspection of the 39th street intercepting sewer which is being built by the City.

DIVISION OF RECORDS.

The work of checking the construction detail sheets was carried on as usual. The tabulated statements showing the values and quantities of work done for the month of February, 1899, together with the financial statement for the same

period, were completed. The books of the Engineering Department have been kept, all correspondence has been carried on, pay rolls and sundry vouchers have been issued, letters and documents have been filed and all other clerical work has been carried on.

I estimate the expenses of the Department for the month of April will be $175,000.00.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,

Chief Engineer."

Per G. M. W.

SANITARY DISTRICT OF CHICAGO—ENGINEERING DEPARTMENT.

CLASSIFIED STATEMENT OF EXPENDITURES DURING THE MONTH OF MARCH, 1899.

Classification.	Engineering Expenses.			Construction.	Total to Date.	
	Salaries.	Supplies, Etc.	Total.		Eng. Expenses.	Construction
Preliminary Sundries					$120,633 75	
Locating Route Main Channel					32,222 94	
Borings and Test Pits					18,864 71	
Maps and Plans for General Use of Sanitary District	$ 129 05	$ 24 47	$ 153 52		53 885 48	
Chicago River Survey	159 30		159 30		63,836 15	
Chicago River Improvement	1,118 00	75 15	1,193 15	$ 37,107 77	23,391 27	$ 185,407 75
Right of Way	253 70	20 96	274 66		37,346 96	
Flood Measurements	112 10	38 03	150 13		26,755 22	
Disposal Works and Joliet Project	2,426 34	379 28	2,805 62	27,460 55	88,683 41	464,099 85
Regular Construction—Main Channel and River Diversion	1,603 73	121 42	1,725 15	18,285 06	563,995 53	18,376,228 04
Extra Work—Main Channel					31 33	63,618 63
Extra Work—River Diversion					9,723 42	334,304 74
Levees, Embankments, etc.					1,022 49	193,177 19
Spillway					1,754 91	20,518 41
Wire Mills Road Temporary Bridge over Main Channel, Sec. 16						1,500 00
Wire Mills Road Permanent Bridge over Main Channel, Sec. 16					912 10	3,917 37
Lockport Temporary Roadway over Main Channel, Sec. 16						1,205 23
Lockport Road Permanent Bridge over Main Channel, Sec. 16	52 50		52 50	1,238 75	599 48	2,906 44
Romeo Road Permanent Bridge over Main Channel, Sec. 12	162 28	97 83	260 11	2,497 91	1,010 83	11,551 91
Romeo Road Temporary Bridge, over Main Channel, Sec. 12						1,120 78
Work Account Western Stone Company's Quarry No. 5, Sec. 10						8,865 65
Western Stone Company's Permanent Bridge over Desplaines River, Sec. 10					1,157 05	15,983 63
Western Stone Company's Temp. Bridge over Main Channel, Sec. 9						1,012 30
Lemont Road Permanent Bridge over Main Channel, Sec. 8		97 52	97 52	5,746 00	1,164 31	20,977 39

SANITARY DISTRICT OF CHICAGO—ENGINEERING DEPARTMENT—*Continued.*

CLASSIFIED STATEMENT OF EXPENDITURES DURING THE MONTH OF MARCH, 1899.

Classification.	*Engineering Expenses.*			Construction.	*Total to Date.*	
	Salaries.	Supplies, Etc.	Total.		Eng. Expenses.	Construction
Lemont Road Temporary Bridge over Main Channel, Sec. 8						$ 1,115 09
Lemont Road Permanent Bridge over Desplaines River, Sec. 8					$ 985 66	22,329 89
A., T. & S. Fe Ry. Co.'s Temporary Bridge over Desplaines River, Sec. 8					770 72	18,738 80
A., T. & S. Fe Ry. Co.'s Permanent Bridge over Desplaines River, Sec. 8		$ 6 85	$ 6 85		3,229 62	26,574 06
A., T. & S. Fe Ry. Co.'s Permanent Bridge over Main Channel and track deviation, Sec. 8	$ 70 00	81 83	151 83	$ 153 44	4,594 86	69,757 70
Willow Springs Road Temporary Bridge over Main Channel, Sec. 1					9 00	1,987 00
Willow Springs Road Permanent Bridge over Main Channel, Sec. 1		90 33	90 33	5,746 00	1,238 09	22,718 52
Mt. Forest Foot Bridge over Illinois and Michigan Canal, Sec. A					32 17	
C. T. T. R. R. Co.'s Temporary Bridge over Main Channel, Sec. E					502 42	7,227 12
C. T. T. R. R. Co.'s Permanent Bridge over Main Channel, Sec. E	50 00	28 75	78 75		3,501 07	50,981 06
C. T. T. R. R. Co.'s Temporary Bridge over Desplaines River, Sec. E	30 00	4 00	34 00		388 00	3,461 27
C. T. T. R. R. Co.'s Permanent Bridge over Desplaines River, Sec. E	90 00	45 75	135 75		1,008 84	3,353 10
Lyons-Summit Road Temporary Bridge over Main Channel, Sec. E					839 05	5,649 52
Lyons-Summit Road Permanent Bridge over Main Channel, Sec. F	120 00	30 00	150 00	12,539 55	2,018 38	30,252 07
Lyons-Summit Road Temporary Bridge over Desplaines River, Sec. E					40 00	
Lyons-Summit Road Permanent Bridge over Desplaines River, Sec. E	40 00		40 00		1,452 12	12,830 82
A., T. & S. Fe Ry. Co.'s Permanent Bridge over Desplaines River, Sec. F					891 45	
A., T. & S. Fe Ry. Co.'s Temporary Bridge over Main Channel, Sec. G					7 00	
A., T. & S. Fe Ry. Co.'s Permanent Bridge over Main Channel and track deviation, Sec. G	80 00	35 75	115 75	4,587 51	5,574 71	108,428 47
C. & W. I. Belt Ry's Temporary Bridge over Main Channel, Sec. K	130 00	14 00	144 00	823 26	334 00	1,811 90
C. & W. I. Belt Ry's Permanent Bridge over Main Channel, Sec. K		600 00	600 00		3,429 69	
A., T. & S. Fe Ry. Co.'s Temporary Bridge over Main Channel, Sec. N					423 69	3,444 78
A., T. & S. Fe Ry. Co.'s Permanent Bridge over Main Channel, Sec. N	40 00	71 00	111 00		4,795 78	60,312 88
Kedzie Avenue Temporary Roadway over Main Channel, Sec. N					512 15	1,067 72

Kedzie Avenue Permanent Bridge over Main Channel, Sec. N.	.....	18 00	18 00	8,270 00	3,215 36	42,423 09
C., M. & N. R. R. Co.'s bridge over M. C. and Kedzie Av. viaduct, and track deviation, Sec. N.	107 00	22 00	129 00	13,886 24	7,145 85	167,254 82
Western Avenue Temporary Bridges over Main Channel, Sec. O.	.....	.....	.....	37 06	1,557 97	8,606 84
Southwest Boulevard Permanent Bridge over Main Channel, Sec. O.	30 00	50 98	80 98	596 31	11,693 28	125,433 02
Pan Handle R. R. Co.'s Temporary Bridge over Main Channel, Sec. O.	264 40	20 92	285 32	7,320 23	3,709 26	53,362 13
Pan Handle R. R. Co.'s Permanent Bridge over Main Channel, Sec. O.	120 00	33	120 33	.....	12,665 28	57,798 20
Canal Street Approach Span, Chicago River.	.....	.....	.....	.....	32 00	.....
Taylor Street Permanent Bridge over Chicago River.	57 00	60	57 00	8,444 44	87 83	12,066 66
C. T. T. R. R. Co.'s Temporary Bridge over Chicago River	75 00	.....	75 00	.....	75 00	.....
C. T. T. R. R. Co.'s Permanent Bridge over Chicago River.	25 00	54	25 54	16,888 89	128 54	25,333 34
E. J. & E. R. R. Co.'s Permanent Bridge between Secs. 16 and 17.	.....	.....	.....	.....	1,653 94	41,964 62
Tow Path Permanent Bridge, Sec. 17.	.....	.....	.....	.....	9 96	.....
Jefferson Street Temporary Bridge, Sec. 18.	119 00	.....	119 00	.....	207 00	.....
Jefferson Street Permanent Bridge, Sec. 18.	19 00	18 07	37 07	.....	677 74	.....
Cass Street Permanent Bridge, Sec. 18.	19 00	18 44	37 44	.....	732 65	.....
C., R. I & P. R. R. Co's. Temporary Bridge, Sec. 18.	27 00	1 07	28 07	548 93	107 07	548 93
C., R. I. & P. R. R. Co.'s Permanent Bridge, Sec. 18.	191 00	.....	191 00	.....	853 37	.....
Moving and Repairing Bridges.	.....	.....	.....	.....	614 88	8,341 44
Building Romeo Highway, Sec. 12.	.....	.....	.....	.....	106 34	1,732 72
Saving of Building Sand.	.....	.....	.....	.....	.....	781 63
Mortar, Sand and Cement Tests.	441 50	71 69	513 19	.....	32,832 92	.....
Saving of Dimension Stone.	.....	.....	.....	.....	.....	11,233 20
Erosion Tests	.....	.....	.....	.....	1,496 75	.....
Temporary Sanitary Relief.	.....	.....	.....	.....	237 60	.....
Photographs of Works.	225 00	33 44	258 44	.....	9,656 25	.....
Public Reports.	.....	.....	.....	.....	3,580 16	.....
Remeasurement of Main Channel.	.....	.....	.....	.....	5,283 83	.....
Effect of Main Channel Water on Lake Levels.	.....	.....	.....	.....	1,798 38	.....
General Account.	.....	.....	.....	.....	71,947 23	.....
Totals.	$ 8,286 90	$ 2,118 95	$10,505 85	$172,128 92	$1,255,131 24	$20,715,027 72

VALUES— STATEMENT SHOWING CONDITION OF

Designation.	Amount earned during March, 1899				Amount earned to date.			
	Main Channel.	Bridges.	General.	Total.	Main Channel.	River Diversion.	Bridges.	General.
Chicago River Imp'ment	$37,837 45			$37,837 45	$ 205,290 58			
O		$ 7,255 35		7,255 35	341,097 87		$ 70,492 16	
N					200,671 52		3,444 78	
M					158,015 06			
L					217,287 06			
K		925 22		925 22	287,299 54		1,913 86	
I					289,846 00			
H					290,099 46			
G					387,701 88			
F					341,404 40	$ 75,627 73		
E	20,840 07			20,840 07	719,259 41	29,091 91	15,046 41	$ 260 00
D					592,039 29	2,880 54		
C					443,342 59	40,135 18		781 63
B					438,986 42	59,451 34		150 00
A					801,584 08	115,741 73		
1					1,210,660 37	143,908 29	1,987 00	30 00
2					877,695 00	63,190 86		90 00
3					840,952 93	338 42		
4					975,248 96	83,304 43		85 25
5					749,207 28	6,653 64		
6					686,281 00	55,911 37		
7					722,544 74	66,193 19		8,758 00
8					888,834 43	89,688 90	19,853 89	2,580 06
9					794,838 28	23,573 72	1,012 30	
10					921,454 79	78,729 58		8,952 33
11					797,717 50	43,854 42		
12					837,660 69	21,768 52	1,120 78	
13					819,388 19			
14					931,457 10			
15					551,915 85	117 61		
16					38,645 23		1,500 00	
17	9,213 50			9,213 50	147,485 71			
18	19,819 90	548 93		20,368 83	52,990 68		548 93	
Disposal Wks. at Lockp't	2,235 02			2,235 02	245,814 27			
Repairing I. & M. Canal								18,052 85
Van Buren St. Approach Span, Chicago River								
Taylor St. Br. over Chicago River		8,444 44		8,444 44			12,666 66	
C. T. T. R. R. Co.'s Br. over Chicago River		16,888 89		16,888 89			25,333 34	
S. W. Blvd. Br., over M. C., Sec. O		596 31		596 31			129,594 49	
Pan Handle Br., over M. C., Sec. O							58,345 64	
C., M. & N. R. R. Co.'s Br., over M. C., Sec. N		12,832 99		12,832 99			156,562 58	
C., M. & N. R. R. Co.'s Br., over Kedzie Av., Sec. N		1,053 25		1,053 25			14,099 87	
Kedzie Av. Br., over M. C., Sec. N		8,276 00		8,276 00			42,680 78	
A., T. & S. F. R. R. Co.'s Br., over M. C., Sec. N.							61,889 61	
A., T. & S. F. R. R. Co.'s Br., over M. C., Sec. G.		4,587 51		4,587 51			106,851 74	
A., T. & S. F. R. R. Co.'s Br., over D. R., Sec. F.								
Lyons-Summit Road Br., over D. R., Sec. E							12,978 77	
Lyons-Summit Road Br., over M. C., Sec. F		13,249 20		13,249 20			32,534 95	
C. T. T. R. R. Co.'s Br., over M. C., Sec. E							50,639 81	
C. T. T. R. R. Co.'s Br., over D. R., Sec. E							3,743 10	
Willow Spgs. Highway Br., over M. C., Sec. 1		5,746 00		5,746 00			22,718 52	
A., T. & S. F. R. R. Co.'s Br., over M. C., Sec. 8		158 44		158 44			72,252 92	
A., T. & S. F. R. R. Co.'s Br., over D. R., Sec. 8							26,924 06	
Lemont Highway Br., over M. C., Sec. 8		5,746 00		5,746 00			20,977 39	
Lemont Highway Br., over D. R., Sec. 8							22,329 89	
Western Stone Co.'s Br., over D. R., Sec. 10							15,983 63	

CONSTRUCTION CONTRACTS, APRIL 1, 1899.

Total.	Amount Paid to Date.	REMAINING TO BE EARNED.			REMAINING TO BE PAID ON VOUCHERS.		
		Main Channel.	Bridges.	Total.	Retained Percentages.	Unpaid Vouchers.	Total.
$ 205,290 58	$ 180,299 98	$ 112,239 61	.....	$ 112,239 61	$ 19,882 83	$ 5,107 77	$ 24,990 60
411,590 03	411,590 03	40,287 38	.....	40,287 38	.....	.....	.....
204,116 30	179,133 61	56,322 40	.....	56,322 40	24,982 69	.....	24,982 69
158,015 06	158,015 06	.....	.....	.....	.....	.....	.....
217,287 06	217,287 06	819 32	.....	819 32	.....	.....	.....
289,213 40	288,799 70	7,888 25	.....	7,888 25	.....	413 70	413 70
289,846 00	289,846 00	.....	.....	.....	.....	.....	.....
290,099 46	290,099 46	28,129 13	.....	28,129 13	.....	.....	.....
387,701 88	387,537 38	11,001 20	.....	11,001 20	164 50	.....	164 50
417,032 13	375,082 00	1,918 34	.....	1,918 34	34,103 38	7,846 75	41,950 13
763,657 73	656,319 55	31,651 95	.....	31,651 95	93,197 73	14,140 45	107,338 18
594,919 83	594,919 83	.....	.....	.....	.....	.....	.....
484,259 40	484,259 40	.....	.....	.....	.....	.....	.....
498,587 76	498,587 76	.....	.....	.....	.....	.....	.....
917,325 81	917,325 81	.....	.....	.....	.....	.....	.....
1,356,585 66	1,349,690 00	.....	.....	.....	6,179 88	715 88	6,895 66
940,975 86	940,975 86	.....	.....	.....	.....	.....	.....
841,291 35	841,291 35	.....	.....	.....	.....	.....	.....
1,058,638 66	1,058,638 66	.....	.....	.....	.....	.....	.....
755,860 92	755,860 92	.....	.....	.....	.....	.....	.....
742,198 37	742,198 37	.....	.....	.....	.....	.....	.....
797,495 93	797,495 93	.....	.....	.....	.....	.....	.....
1,000,952 28	1,000,637 28	9,942 66	.....	9,942 66	315 00	.....	315 00
819,424 30	819,424 30	.....	.....	.....	.....	.....	.....
1,009,186 70	1,009,186 70	.....	.....	.....	.....	.....	.....
841,571 92	841,571 92	.....	.....	.....	.....	.....	.....
860,549 99	860,549 99	.....	.....	.....	.....	.....	.....
819,388 19	819,388 19	.....	.....	.....	.....	.....	.....
931,457 10	931,457 10	.....	.....	.....	.....	.....	.....
552,083 46	552,083 46	.....	.....	.....	.....	.....	.....
40,145 23	35,465 23	26,910 00	.....	26,910 00	4,680 00	.....	4,680 00
147,435 71	122,232 21	150,245 60	.....	150,245 60	17,141 69	8,061 81	25,203 50
58,539 61	30,078 78	97,828 80	.....	97,828 80	6,547 95	16,912 88	23,460 83
245,814 27	232,504 63	6,578 98	.....	6,578 98	11,629 26	1,680 38	13,309 64
18,052 85	18,052 85	.....	.....	.....	.....	.....	.....
.....	.....	.....	$19,495 87	19,495 87	.....	.....	.....
12,666 66	12,666 66	.....	.....	.....	.....	.....	.....
25,333 34	25,333 34	.....	.....	.....	.....	.....	.....
129,594 49	125,433 02	.....	23,940 61	23,940 61	4,161 47	.....	4,161 47
58,345 64	58,345 64	.....	355,670 24	355,670 24	.....	.....	.....
156,562 53	156,562 53	.....	632 61	632 61	.....	.....	.....
14,099 87	14,099 87	.....	.....	.....	.....	.....	.....
42,680 78	42,680 78	.....	250 00	250 00	.....	.....	.....
61,889 61	61,889 61	.....	7,286 54	7,286 54	.....	.....	.....
106,851 74	86,435 74	.....	.....	.....	.....	20,416 00	20,416 00
.....	.....	.....	19,321 80	19,321 80	.....	.....	.....
12,978 77	12,830 82	.....	.....	.....	147 95	.....	147 95
32,534 95	27,122 02	.....	5,362 45	5,362 45	2,282 88	3,130 05	5,412 93
50,639 81	50,639 81	.....	.....	.....	.....	.....	.....
3,743 10	3,694 35	.....	14,428 65	14,428 65	48 75	.....	48 75
22,718 52	16,972 52	.....	160 00	160 00	.....	5,746 00	5,746 00
72,252 92	70,001 83	.....	35,571 30	35,571 30	2,251 09	.....	2,251 09
26,924 06	26,574 06	.....	—4,962 03	—4,962 03	350 00	.....	350 00
20,977 39	15,231 39	.....	141 35	141 35	.....	5,746 00	5,746 00
22,329 89	22,329 89	.....	.....	.....	.....	.....	.....
15,983 63	15,983 63	.....	.....	.....	.....	.....	.....

VALUES— STATEMENT SHOWING CONDITION OF

Designation.	Amount earned during March, 1899.				Amount earned to date.			
	Main Channel.	Bridges.	General.	Total.	Main Channel.	River Diversion.	Bridges.	General.
Romeo Highway Br. over M. C., Sec. 12	.....	$ 2,854 75	.....	$ 2,854 75	.....	.....	$ 11,908 75	.....
Lockport Highway Br. over M. C., Sec. 16	.....	1,410 00	.....	1,410 00	.....	.....	3,321 65	.....
Wire Mills Rd. Br., over M. C., Sec. 16	.....	.....	.....	.....	.....	.....	4,477 00	.....
E., J. & E. R. R. Co.'s Br., N. of Joliet	.....	.....	.....	.....	.....	.....	41,984 62	.....
Cass St. Br. over M. C., Sec. 18	.....	.....	.....	.....	.....	.....	.....	.....
Jefferson St. Br. over M. C., Sec. 18	.....	.....	.....	.....	.....	.....	.....	.....
Crib work at Joliet	.....	.....	.....	.....	.....	.....	.....	$32,140 89
Totals	$89,945 94	$90,568 28	.....	180,514 22	$ 18,804,669 18	$1,000,156 38	$1,067,719 83	$71,881 01

CONSTRUCTION CONTRACTS, APRIL 1, 1899—*Continued.*

Total.	Amount Paid to Date.	REMAINING TO BE EARNED.			REMAINING TO BE PAID ON VOUCHERS.		
		Main Channel.	Bridges.	Total.	Retained Percentages.	Unpaid Vouchers.	Total.
$ 11,908 75	$ 9,557 12	.....	$ 12,801 00	$ 12,801 00	$ 356 84	$ 1,994 79	$ 2,351 63
3,321 65	2,906 54	.....	11,155 35	11,155 35	415 21	.....	415 21
4,477 00	3,917 37	.....	10,284 30	10,284 30	559 63	.....	559 63
41,984 62	41,984 62	.....	.....	.....	.....	.....	.....
.....	.....	.....	38,265 75	38,265 75	.....	.....	.....
.....	.....	.....	45,627 25	45,627 25	.....	.....	.....
32,140 89	32,140 89	.....	.....	.....	.....	.....	.....
$20,944,426 40	$20,673,115 31	$581,763 62	$595,433 04	$1,177,196 66	$229,398 68	$91,912 41	$321,311 09

QUANTITIES— STATEMENT SHOWING CONDITION OF CON

DESIGNATION.	AMOUNT DONE DURING MARCH, 1899. Main Channel. Glacial Drift. Cu. Yds	Solid Rock. Cu. Yds	Retain-i'g wall Cu. Yds	Masonry and Conc'rt. Cu. Yds.	TOTAL DONE TO Main Channel. Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds.	Retaining Wall. Cu. Yds.
Chicago River Improvement	1,800			615	630,200		
O					1,630,512		
N					870,429		
M					728,180		
L					1,102,980		
K					1,149,031		
I					1,159,384		
H					997,014		
G					1,356,614		
F					1,093,047	37,448	
E	7,871	12,243			1,906,732	187,418	
D					1,934,890	87,030	
C					1,881,545		
B					1,579,036	15,586	
A					2,560,648	13,312	
1					1,282,267	554,326	68,256
2					724,905	483,750	38,506
3					425,705	760,778	14,039
4					1,096,746	262,428	68,169
5					952,526	378,609	56,059.1
6					683,248	549,355	30,361.7
7					181,721	890,939	6,179.9
8					50,170	1,145,252.1	2,874.9
9					76,692	1,003,769	
10					31,743	1,141,890	
11					44,021	989,711	
12					44,030	998,709	9,286.94
13					33,810	1,033,665	10,838
14					380,165	1,022,796	23,567.8
15					35,324	647,039	44,811.2
16						96,000	
17		6,600	110		84,800	152,200	110
18		900		1,507	74,300	900	
Disposal Works at Lockport		1,000		—22.1		9,538	
Van Buren St. App. Span, Chicago R.							
S. W. Blvd. Bridge over M. C., Sec. O.					9,873.5		
Panhandle Bridge over M. C., Sec. O.							
C., M. & N. R. R Co.'s Bridge over Main Channel, Sec. N					17,849		
C., M. & N. R. R. Co.'s Bridge over Kedzie Avenue, Sec. N					2,869		
Kedzie Avenue Bridge over Main Channel, Sec. N					7,101		
A., T. & S. F. R. R. Co.'s Bridge over Main Channel, Sec. N					7,445		
A., T. & S. F. R. R. Co.'s Bridge over Main Channel, Sec. G					85,253		
Lyons-Summit Road Bridge over Desplaines River, Sec. E					5,557		
Lyons-Summit Road Bridge over Main Channel, Sec. F				711	2,266		
C., T. T. R. R. Co.'s Bridge over Main Channel, Sec. E					4,748.1		
C., T. T. R.R. Co.'s Br. over Desplaines River, Sec. E					600		
Willow Springs Highway Bridge over Main Channel, Sec. 1					2,084		
A., T. & S. F. R. R. Co.'s Bridge over Main Channel, Sec. 8					98,315	1,020	
Lemont Highway Bridge over Main Channel, Sec. 8					2,006	202	
Romeo Highway Bridge over Main Channel, Sec. 12		900		247		900	
Lockport Highway Bridge over Main Channel, Sec. 16		20		200		354	
Wire Mills Road Bridge over Main Channel, Sec. 16						575	
E., J. & E. R.R.Co.'s Bridge, N. of Joliet							
Cass St. Bridge over M. C., Sec. 18							
Jefferson St. Bridge over M. C., Sec. 18							
Totals	9,671	21,663	110	3,257.9	27,019,381.6	12,465,499.1	373,059.54

* Retaining Wall.

STRUCTION CONTRACTS APRIL 1, 1899.

DATE.				ESTIMATED REMAINING TO BE DONE.				PERCENTAGE COMPLETED.				
River Diversion.		Piles. Lineal Feet.	Masonry and Concr't. Cu. Yds.	*Main Channel.*				Main Channel Excava'n	River Divers'n.	Ret. Wall	Masonry and Concr't	Piles.
Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds.			Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds	Piles & R. W.	Mas'y & Concr't Cu. Yds					
.....	.....	35,500	838	27,650	.....	.....	6,491	95.80	.....	....	11.43	100
.....	.....	.....	.....	192,523	.....	.....	.....	89.44	.....	....	.....	.....
.....	.....	.....	.....	244,880	.....	.....	.....	77.80	.....	....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	....	.....	.....
.....	.....	.....	.....	4,159	.....	.....	.....	99.62	.....	...	.....	.....
.....	.....	.....	.....	31,553	.....	.....	.....	97.33	.....	....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	....	.....	.....
.....	.....	.....	.....	96,997	.....	.....	.....	91.22	.....	....	.....	.....
.....	.....	.....	.....	39,290	.....	.....	.....	97.18	.....	....	.....	.....
179,447	.....	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
95,718	.....	.....	.....	12,302	12,582	.....	.....	98.83	100	....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	....	.....	.....
170,788	.....	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
212,486	.....	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
359,353	.....	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
174,655	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
119,234	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	100	.....	.....
106,803	17,857	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
12,256	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
118,647	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
97,917	43,102	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
57,902	99,399	.....	.....	.....	15,782	.....	.....	98.70	100	100	.....	.....
40,763	16,873	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
30,313	58,276	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
12,699	15,677	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
11,739	7,475	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	100	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	100	.....	.....
619	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
.....	.....	.....	.....	.....	69,000	.....	.....	58.18	.....	....	.....	.....
.....	.....	.....	.....	202,670	176,360	.....	.....	38.47	.....	100	.....	.....
.....	.....	.....	1,707	166,335	.....	*6,300	.....	58.13	.....	00	100	.....
.....	.....	.....	11,365.7	.....	567	.....	.....	94.39	.....	....	100	.....
.....	.....	.....	.....	2,800	.....	.....	784	00	.....	....	00	.....
.....	.....	10,813	4,421.94	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	.....	.....	23,000	.....	29,600	14.360	00	.....	....	00	00
.....	.....	5,948	4,236.77	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	.....	595.69	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	.....	2,886.84	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	4,544	2,489.36	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	5,748	2,929.03	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	.....	793.3	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	1,501	2,015	104	.....	2,499	.....	95.61	.....	....	100	37.53
.....	.....	1,166.5	2,162.79	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	.....	.....	372	.....	1,000	652	61.73	.....	....	00	00
.....	.....	400	598.6	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	.....	817.07	29,785	.....	.....	.....	98.97	.....	....	100	.....
.....	.....	.....	433.36	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	.....	247	.....	.....	.....	835	100	.....	....	22.83	.....
.....	.....	.....	427	.....	.....	.....	33	100	.....	....	90.85	.....
.....	.....	.....	540	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	.....	1,041.84	.....	.....	.....	.....	00	.....	....	100	.....
.....	.....	.....	.....	2,850	52	.....	696	.....	.....	....	00	.....
.....	.....	.....	.....	3,000	104	.....	1,242	00	.....	....	00	.....
1,801,339	258,659	65,620.5	40,546.29	1,080,270	274,447	33,099	25,003	96.70	100	98.34	61.77	66.47

REPORT IN REFERENCE TO SETTLEMENT WITH CHESTER A. ALLEN.

Mr. Smyth, Chairman, presented a report from the Committee on Engineering in reference to, and accompanied by, a communication from the Attorney to the Committee, in regard to the proposition of Mr. Chester A. Allen, for a settlement of all claims for damage to him growing out of the appropriation by the District of the land involved in the ejectment suit recently decided by the Supreme Court in favor of said Allen, the report recommending that the President and Clerk be authorized and directed to make payment to said Allen in the sum of twenty-five hundred dollars in full settlement adjustment and compromise of all differences pending, and in full release of said suit and claims for damage growing out of same.

Mr. Smyth, seconded by Mr. Wenter, moved that the report be adopted and the recommendations contained therein concurred in.

On roll call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Smyth and Wenter—eight. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, 24th April, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Your Committee on Engineering makes report herewith that the Committee has received from the Attorney a communication concerning a proposition made by Mr. Chester A. Allen, of Joliet, towards a settlement of all claims for damage to him growing out of the appropriation by the District of the land involved in the ejectment suit recently decided by the Supreme Court in favor of said Allen. The sum asked for in settlement is $2,500.00. The Attorney advises us in his communication that Messrs. Haley & O'Donnell, Attorneys in Joliet, recommend that this settlement be made and, in view of the circumstances and the legal position of the District in the premises, he concurs in their recommendation.

The Committee believes that this settlement is the best that can be had and that its acceptance at this time will best conserve the interests of the District. The Committee therefore recommends that the President and Clerk of the District be authorized and directed to make payment to said Chester A. Allen in the sum of twenty-five hundred dollars ($2,500.00) in full settlement, adjustment and compromise of all differences pending between said Allen and the District, and in full release of said suit and all claims for damages growing out of the suit aforesaid; provided that when said payment is made a proper receipt shall be taken therefor.

Attached hereto is the communication of the Attorney hereinabove referred to.

Respectfully submitted,

(Signed) THOMAS A. SMYTH,
Chairman.
J. C. BRADEN,
Z. R. CARTER,
B. A. ECKHART,
THOMAS KELLY,
WM. BOLDENWECK,
ALEX. J. JONES,
Committee on Engineering."

(One enclosure).

ORDER FOR PAYMENT OF WILL COUNTY TAXES.

Mr. Carter presented and seconded by Mr. Braden, moved the adoption of the following:

ORDER:

"*Ordered*, That the Clerk of the District be and is hereby directed to draw warrants, payable to the order of the Treasurer of Will County, for taxes and interest due from the District, upon the voucher of the Attorney."

On roll-call, on the motion for the adoption of the order the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckart, Jones, Kelly, Smyth and Wenter—eight. Nays—none.

Upon this result the President declared the motion carried.

PRESENTATION OF BIDS FOR "SUB AND SUPERSTRUCTURES OF A RAILROAD BRIDGE, CROSSING THE CHICAGO RIVER NEAR TAYLOR STREET, AND BRIDGE FOR TAYLOR STREET, IN THE CITY OF CHICAGO."

The President then announced that, in conformity with the advertisement in-

IN THE CITY OF CHICAGO.

No. of Bid as Received	—i— Superstructure Complete.	—k— Extra Medium or Soft Steel. Price per lb.	—l— Extra Iron Castings. Price per lb.	—m— Extra Steel for Superstructure. Price per lb.	—n— Extra Steel Castings for Machinery. Price per lb.	—o— Extra Phosphor Bronze. Price per lb.	—p— Extra Counterweight Block Casting. Price per lb.	Total.
11	$ 214,500 00	$0 04¾	$0 04¼	$0 08½	$0 10½	$ 0 30	$0 02	$297,384 96
9	242,000 00	05¾	04½	07	09	30	01 6-10	335,412 20
10	247,841 00	04 9-10	03 9-10	07 8-10	07 8 10	35	01 9 10	335.533 14
5	247,000 00	05½	04	07	08	35	02½	337,677 05
1	251,000 00	06	10	10	10	50	02	345,363 20
8	295 000 00	03 95-100	03½	07½	10	45	01½	385,825 40
7	295,000 00	03½	02	06	08	30	01½	388,641 58

CITY OF CHICAGO.

No. of Bid as Received	—m— Extra Iron Castings. Price per lb.	—n— Extra Steel in Track Plates. Price per lb.	—o— Extra Steel Castings. Price per lb.	—p— Extra Phosphor Bronz. Price per lb.	—q— Extra Counterweight Block Castings. Price per lb.	—r— Removal of Present Abutments, etc.	Total.
2							
9	$ 0 10	$ 0 10	$ 0 10	$ 0 50	$0 02	$ 2,200 00	$ 71,040 20
6	04½	07	09	30	01 6-10	2,000 00	77,181 70
8	04	07	08	35	02½	2,000 00	77,569 00
10	02	06	08	30	01½	1,800 00	79,830 95
11	03 9-10	07 8-10	07 8-10	35	01 9-10	4,100 00	81,215 95
4	04¼	08½	10½	30	02	1,800 00	82,506 95
	03½	07½	10	45	01½	2,400 00	99,502 65

SANITARY DISTRICT OF CHICAGO—ENGINEERING DEPARTMENT—*Continued.*

CLASSIFIED STATEMENT OF EXPENDITURES DURING THE MONTH OF MARCH, 1899.

Classification.	*Engineering Expenses.*			Construction.	*Total to Date.*	
	Salaries.	Supplies, Etc.	Total.		Eng. Expenses.	Construction
Lemont Road Temporary Bridge over Main Channel, Sec. 8						$ 1,115 09
Lemont Road Permanent Bridge over Desplaines River, Sec. 8					$ 985 66	22,329 89
A., T. & S. Fe Ry. Co.'s Temporary Bridge over Desplaines River, Sec. 8					770 72	18,738 80
A., T. & S. Fe Ry. Co.'s Permanent Bridge over Desplaines River, Sec. 8		$ 6 85	$ 6 85		3,229 62	26,574 06
A., T. & S. Fe Ry. Co.'s Permanent Bridge over Main Channel and track deviation, Sec. 8	$ 70 00	81 83	151 83	$ 153 44	4,594 86	69,757 70
Willow Springs Road Temporary Bridge over Main Channel, Sec. 1					9 00	1,987 00
Willow Springs Road Permanent Bridge over Main Channel, Sec. 1		90 33	90 33	5,746 00	1,238 09	22,718 52
Mt. Forest Foot Bridge over Illinois and Michigan Canal, Sec. A					32 17	
C. T. T. R. R. Co.'s Temporary Bridge over Main Channel, Sec. E					502 42	7,227 12
C. T. T. R. R. Co.'s Permanent Bridge over Main Channel, Sec. E	50 00	28 75	78 75		3,501 07	50,981 06
C. T. T. R. R. Co.'s Temporary Bridge over Desplaines River, Sec. E	30 00	4 00	34 00		388 00	3,461 27
C. T. T. R. R. Co.'s Permanent Bridge over Desplaines River, Sec. E	90 00	45 75	135 75		1,008 84	3,353 10
Lyons-Summit Road Temporary Bridge over Main Channel, Sec. E					839 05	5,649 52
Lyons-Summit Road Permanent Bridge over Main Channel, Sec. F	120 00	30 00	150 00	12,539 55	2,018 38	30,252 07
Lyons-Summit Road Temporary Bridge over Desplaines River, Sec. E					40 00	
Lyons-Summit Road Permanent Bridge over Desplaines River, Sec. E	40 00		40 00		1,452 12	12,830 82
A., T. & S. Fe Ry. Co.'s Permanent Bridge over Desplaines River, Sec. F					891 45	
A., T. & S. Fe Ry. Co.'s Temporary Bridge over Main Channel, Sec. G					7 00	
A., T. & S. Fe Ry. Co.'s Permanent Bridge over Main Channel and track deviation, Sec. G	80 00	35 75	115 75	4,587 51	5,574 71	108,428 47
C. & W. I. Belt Ry's Temporary Bridge over Main Channel, Sec. K	130 00	14 00	144 00	823 26	334 00	1,811 90
C. & W. I. Belt Ry's Permanent Bridge over Main Channel, Sec. K		600 00	600 00		3,429 69	
A., T. & S. Fe Ry. Co.'s Temporary Bridge over Main Channel, Sec. N					423 69	3,444 78
A., T. & S. Fe Ry. Co.'s Permanent Bridge over Main Channel, Sec. N	40 00	71 00	111 00		4,795 78	60,312 88
Kedzie Avenue Temporary Roadway over Main Channel, Sec. N					512 15	1,067 72

Kedzie Avenue Permanent Bridge over Main Channel, Sec. N.	.....	18 00	18 00	8,276 00	3,215 36	42,423 09
C., M. & N. R. R. Co.'s bridge over M. C. and Kedzie Av. viaduct, and track deviation, Sec. N.	107 00	22 00	129 00	13,896 24	7,145 85	167,254 82
Western Avenue Temporary Bridges over Main Channel, Sec. O.	.....	.....	.....	37 08	1,557 97	8,696 84
Southwest Boulevard Permanent Bridge over Main Channel, Sec. O.	30 00	50 93	80 93	596 31	11,693 28	125,433 02
Pan Handle R. R. Co.'s Temporary Bridge over Main Channel, Sec. O.	264 40	20 92	285 32	7,320 93	3,709 26	52,362 13
Pan Handle R. R. Co.'s Permanent Bridge over Main Channel, Sec. O.	120 00	33	120 33	.....	12,665 28	57,798 20
Canal Street Approach Span, Chicago River	.....	.....	.....	.....	32 00	.....
Taylor Street Permanent Bridge over Chicago River	57 00	60	57 60	8,444 44	87 83	12,666 66
C. T. T. R. R. Co.'s Temporary Bridge over Chicago River	75 00	.....	75 00	.....	75 00	.....
C. T. T. R. R. Co.'s Permanent Bridge over Chicago River	25 00	54	25 54	16,888 89	128 54	25,333 34
E. J. & E. R. R. Co.'s Permanent Bridge between Secs. 16 and 17	.....	.....	.....	.....	1,653 94	41,984 62
Tow Path Permanent Bridge, Sec. 17	.....	.....	.....	.....	9 96	.....
Jefferson Street Temporary Bridge, Sec. 18	119 00	.....	119 00	.....	207 00	.....
Jefferson Street Permanent Bridge, Sec. 18	19 00	18 07	37 07	.....	677 74	.....
Cass Street Permanent Bridge, Sec. 18	19 00	18 44	37 44	.....	732 65	.....
C., R. I & P. R. R. Co's. Temporary Bridge, Sec. 18	27 00	1 07	28 07	548 93	107 07	548 93
C., R. I. & P. R. R. Co.'s Permanent Bridge, Sec. 18	191 00	.....	191 00	.....	853 37	.....
Moving and Repairing Bridges	.....	.....	.....	.....	614 88	8,341 44
Building Romeo Highway, Sec. 12	.....	.....	.....	.....	106 34	1,732 72
Saving of Building Sand	.....	.....	.....	.....	.....	781 63
Mortar, Sand and Cement Tests	441 50	71 69	513 19	.....	32,832 92	.....
Saving of Dimension Stone	.....	.....	.....	.....	.....	11,233 20
Erosion Tests	.....	.....	.....	.....	1,496 75	.....
Temporary Sanitary Relief	.....	.....	.....	.....	237 60	.....
Photographs of Works	225 00	33 44	258 44	.....	9,656 25	.....
Public Reports	.....	.....	.....	.....	3,580 16	.....
Remeasurement of Main Channel	.....	.....	.....	.....	5,283 83	.....
Effect of Main Channel Water on Lake Levels	.....	.....	.....	.....	1,798 38	.....
General Account	.....	.....	.....	.....	71,947 23	.....
Totals	$ 8,286 90	$ 2,118 95	$10,505 85	$172,128 92	$1,255,131 24	$20,715,027 72

ADJOURNMENT.

On motion of Mr. Carter, seconded by Mr. Smyth, the Board then adjourned.

THOMAS S. BELL,

Acting Clerk.

PROCEEDINGS

—OF THE—

BOARD OF TRUSTEES

—OF THE—

SANITARY DISTRICT OF CHICAGO.

MAY 3, 1899.

OFFICIAL RECORD.

Published by authority of the Board of Trustees of the Sanitary District of Chicago.

SPECIAL MEETING.

A special meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the board, Security Building, Wednesday, May 3, 1899, at 2 o'clock P. M., pursuant to call.

On roll call—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Smyth and Wenter—eight members, were present, Mr. Mallette arriving subsequently.

President Boldenweck then called the Board to order.

CALL FOR MEETING.

The Clerk then read the notice of the call for the special meeting, which is as follows:

"CHICAGO, May 1, 1899.

Mr. Joseph F. Haas, Clerk, Sanitay District of Chicago:

DEAR SIR—Pursuant to the Rules, you will please call a special meeting of the Board of Trustees of the Sanitary District of Chicago to be held at the Board room of said District, in the Security Building, Chicago, Illinois, on Wednesday, May 3, 1899, at 2 o'clock P. M., for the purpose of approving and ordering payment of the vouchers, and for the transaction of such other business as may properly come before said meeting.

Yours truly,

(Signed) WILLIAM BOLDENWECK,
President."

MINUTES.

The minutes of the regular meeting held April 26, 1899, were approved as printed on motion of Mr. Kelly, seconded by Mr. Braden.

*VOUCHERS.

The Clerk presented the following vouchers:

PAY ROLLS.

Engineering Department (Chief Engineer's roll, April, 1899).....$ 841 67
Engineering Department (Division of Construction roll, April, 1899)... 5,155 73

Engineering Department (Division of Draughting and Designing roll, April, 1899)	$ 1,671 50	
Engineering Department (Division of Records roll, April, 1899)	682 00	
		$ 8,350 90
Clerical Department (Clerk's roll, April, 1899)		1,038 33
Law Department (Attorney's roll, April, 1899)	$ 1,433 34	
Law Department (Joliet roll, April, 1899)	458 34	
		1,891 68
Treasury Department (Treasurer's roll, April, 1899)		166 66
General Account (General roll, April, 1899)	$ 210 00	
General Account (Trustees' roll, April, 1899)	2,333 33	
		$ 2,543 33
Police Department (Marshal's roll, April, 1899)		2,470 72
Maintenance Account (Pumping Plant roll, April, 1899)		585 00
Total		$17,041 62
CLERICAL DEPARTMENT.		
Maud V. Schaffner (stenographic services)		50 00
LAW DEPARTMENT.		
John S. Runnells (services, General Counsel, April, 1899)		416 67
CONSTRUCTION ACCOUNT.		
Lydon & Drews Company (Chicago River dredging, April 30, 1899)	$ 11,687 38	
Lydon & Drews Company (By-Pass, May 1, 1899)	5,322 71	
Lydon & Drews Company (By-pass, repairs, etc., April 15, 1899)	3,270 38	
Halvorson, Richards & Co. (Section E, May 1, 1899)	7,807 67	
Halvorson, Richards & Co. (Section O—P. H. Bridge)	20 07	
Heldmaier & Neu (Section 12, Romeo Bridge, April 15, 1899)	704 59	
Christie & Lowe (Bear Trap Dam, cleaning castings, etc)	691 97	
The Canal Commissioners (rebuilding Lock No. 5)	2,085 82	
Continental Lumber Company (Section O—P. H. temporary trestle)	1,191 84	
The Marsh & Bingham Company (Section O—P. H. temporary trestle)	130 77	
Continental Bolt & Iron Works (Section O—P. H. temporary trestle)	29 36	
		$32,942 56
Grand total		$50,450 85

*To be paid by warrants with interest coupons attached, drawn against the Tax Levy for the year 1899.

Mr. Carter, seconded by Mr. Wenter, moved that the vouchers as read and shown above be approved and ordered paid.

On roll call the vote stood: Yeas—Messrs. Boldenweck Braden, Carter, Eckhart, Jones, Kelly, Smyth and Wenter—eight. Nays—None.

Upon this result the President declared the motion carried.

WEEKLY REPORT ON EMPLOYES.

The Clerk presented a report in accordance with the rules, showing the number of persons in the employ of the District for the week ending April 29, 1899, which was read and by unanimous consent was ordered printed and placed on file.

The following is

THE REPORT:

CHICAGO, May 3, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the week ending April 29, 1899, as the same have been reported to me:

Engineering department	77
Maintenance account	8
Clerical department	5
Law department	8
Treasury department	1
Police department	29
General	2
Total employes	130

Respectfully submitted,

(Signed) THOS. S. BELL,
Acting Clerk."

MONTHLY REPORT FROM TREASURY DEPARTMENT.

The Clerk presented a report from the Treasury Department for the month of April, 1899, which was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT:

Receipts.

Balance on hand at date of last report		$ 307,102 99
From Collector Town of Lyons, Sanitary District Tax Account	$ 3,023 35	
From Collector Town of Cicero, Sanitary District Tax Account	16,241 91	
From Collector West Town, Sanitary District Tax Account	96,785 39	
From Collector South Town, Sanitary District Tax Account	326,009 11	
From Collector North Town, Sanitary District Tax Account	83,935 79	
From Collector Hyde Park	106,015 83	
From Collector Lake View	33,587 35	
From J. F. Haas, Clerk, General Account	10 88	
From J. F. Haas, Clerk, Land Account	100 00	
From J. F. Haas, Clerk, Law Department	240 00	
From Chicago National Bank, Interest Account	579 06	
Total cash received for month		$ 666,528 67
		$ 973,631 66

Disbursements.

Clerical Department	$ 14 99	
Engineering Department	223 99	
Law Department	193 30	
General Account	19 00	
Maintenance Account	82 78	
Police Department	62 79	
Tax Warrants Paid	286,233 68	
Interest on Tax Warrants	12,357 19	
Total cash disbursed		$ 299,187 72
Balance this date in banks as per schedule endorsed hereon		674,443 94
		$ 973,631 66

Schedule.

Chicago National Bank	$ 648,505 16
National Bank of Illinois	25,938 78
Total	$ 674,443 94

CHICAGO, May 3, 1899.

(Signed) F. M. BLOUNT, *Treasurer.*
By S. P. BLOUNT, *Asst. Treasurer.*

SEMI-ANNUAL PROPERTY RETURN FROM ENGINEERING DEPARTMENT.

The Clerk presented a report from the Chief Engineer, transmitting the semi-annual property return from the Engineering Department for the half year ending December 31, 1898, which was read and, by unanimous consent, was ordered printed and with accompanying property return, placed on file.

The following is

THE REPORT.

"CHICAGO, May 2, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I herewith transmit the property return of the Engineering Department for the half year ending December 31, 1898.

Respectfully submitted,

ISHAM RANDOLPH,
Chief Engineer."

(Accompanied by property return.)

COMPLETION OF CONTRACTS FOR SUBSTRUCTURES FOR THE LOCKPORT HIGHWAY BRIDGE AND WIRE MILLS ROAD BRIDGE CROSSING RIVER DIVERSION CHANNEL ON SECTION 16.

The Clerk presented and read two reports from the Chief Engineer, being

final certificates in reference to the completion of the contract with Messrs. Griffiths & McDermott for the substructure for the Lockport Highway Bridge crossing River Diversion Channel on Section 16, and with Messrs. Hayes Bros. for the substructure of the Wire Mills Road Bridge crossing River Diversion Channel on Section 16, both of which, by unanimous consent, were referred to the Committee on Engineering, on motion of Mr. Carter, seconded by Mr. Wenter.

APPROVAL OF REDUCED BOND ON CONTRACT FOR SECTION 18.

Mr. Carter, Chairman, presented and the Clerk read a report from the Committee on Finance in regard to the acceptance of the new bond in the sum of $25,000 furnished by Messrs. Gahan & Byrne, contractors for Section 18, in lieu of the original bond on said contract given by said contractors, and in accordance with the action of the Board at the meeting held August 3, 1898 (page 5016 of the Proceedings), the report recommending that said new bond as herewith submitted be approved by the Board of Trustees.

Mr. Carter, seconded by Mr. Kelly, moved that the report be adopted and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Kelly, Smyth and Wenter—seven. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, May 1, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Your Committee on Finance desires to report that a bond in the sum of twenty-five thousand dollars ($25,000.00) has been executed by Messrs. Gahan & Byrne, contractors for Section eighteen (18) of the Main Channel, with the City Trust, Safe Deposit and Surety Company of Philadelphia as surety thereon. That this bond is furnished in lieu of a bond in the penal sum of one hundred thousand dollars ($100,000.00) originally given by said contractors with the contract upon said section, which was authorized by the Board of Trustees (page 5016 of the Proceedings) to be released upon the execution of a new bond as aforesaid, to be approved by the Board of Trustees. The Committee desires to say that it has examined the bond herewith submitted for approval and finds that the same is in proper form and that the surety thereon is sufficient.

The Committee therefore recommends that said bond as herewith submitted be approved by the Board of Trustees.

(Signed) Z. R. CARTER,
Chairman.
B. A. ECKHART,
THOMAS KELLY,
FRANK WENTER,
ALEX. J. JONES,
Committee on Finance."

(Accompanied by bond ni duplicate.)

REPORT IN REFERENCE TO SALE OF CERTAIN DISTRICT LANDS TO U. S. GOVERNMENT.

Mr. Carter, Chairman, presented, and the Clerk read, a report from the Joint Committee on Finance and Engineering in reference to a proposition from Major William L. Marshall, on behalf of the Federal Government, for the purchase of three separate tracts of land now owned by the District, at the purchase price paid for said land by the Sanitary District, the report recommending that the President and Clerk of the District be authorized and directed to execute three separate agreements in the form hereto attached, for the conveyance of the property described in the said agreements and for the amounts therein mentioned, and also to execute a warranty deed conveying the property described in the said agreements, and releasing the U. S. Government from any damages resulting from the improvement of the Chicago River, said deeds to be in such form as approved by the Attorney of the District, and deeds and agreements to be delivered to Major Wm. L. Marshall and subject to the approval of the Secretary of war.

Mr. Carter, seconded by Mr. Smyth, moved that the report be adopted and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Smyth and Wenter—eight. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT.

"CHICAGO, May 3, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN — Your Joint Committee on Finance and Engineering begs leave to report that it is proposed by the Government of the United States to improve the South Branch of the Chicago River by widening and deepening the same in various places and, in order to carry out its plan of improvement, certain real estate owned by the Sanitary District of Chicago and adjoining said South Branch of the Chicago River is required by the United States Government.

Major William L. Marshall, acting on behalf of the Federal Government, has made a proposition to your Committee to purchase three (3) separate tracts now owned by the District; the price to be paid for the same being the purchase price paid for said land by the Sanitary District; and Major Marshall has submitted forms of contract which he desires the District to execute and return to him, same to be approved by the Secretary of War.

Your Committee is of the opinion that it would be to the interests of the District and the people of Chicago to convey this property to the Federal Government, which would result in enlarging the channel of the Chicago River.

Your Committee, therefore, recommends that the President and Clerk of the District be authorized and directed to execute, in the name of the Sanitary District, the three (3) separate agreements in the form hereto attached for the conveyance of the property described in said agreements respectively, and for the amounts therein mentioned; and that the President and Clerk be further authorized to execute, on behalf of the Sanitary District, a warranty deed conveying to the United States the property described in the three (3) forms of agreements hereto attached, and releasing the United States Government from any damage to the District, resulting from the improvement of said Chicago River; said deed to be in such form as may be approved by the Attorney of the District. Said deeds and agreements above mentioned to be delivered to Major William L. Marshall and subject to the approval of the Secretary of War.

Respectfully submitted,

(Signed) Z. R. CARTER,
Chairman,
B. A. ECKHART,
THOMAS A. SMYTH,
ALEX. J. JONES,
THOMAS KELLY,
FRANK WENTER,
WM. BOLDENWECK,

Joint Committee on Finance and Engineering."

(Accompanied by form of three agreements.)

REPORT IN REFERENCE TO BIDS FOR "SUB AND SUPERSTRUCTURES OF A RAILROAD BRIDGE CROSSING THE CHICAGO RIVER NEAR TAYLOR STREET, AND BRIDGE FOR TAYLOR STREET, IN THE CITY OF CHICAGO," AWARD OF CONTRACTS THEREFOR, AND RETURN OF CERTAIN CHECKS.

On behalf of the Committee on Engineering, Mr. Smyth presented, and the Clerk read, a report in reference to the bids for "sub and superstructures of a railroad bridge crossing the Chicago River near Taylor Street, and bridge for Taylor Street, in the City of Chicago," presented and referred to that Committee at the meeting held April 26, 1899 (page 5664 of the Proceedings), the report recommending that the President and Clerk be authorized to enter into contract with the Pennsylvania Steel Company, under the bid made by it for the said railroad bridge, and with the Chicago Bridge and Iron Company, under the bid made by it for the bridge for Taylor Street, as soon as said companies shall have furnished bonds acceptable to the Finance Committee of this Board, in the proper amounts.

Mr. Carter, seconded by Mr. Wenter, moved that the report be adopted and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Kelly, and Wenter—six. Nays—none. Excused and not voting, Messrs. Jones and Smyth—two.

Upon this result the President declared the motion carried.

In the same connection Mr. Kelly, seconded by Mr. Braden, moved that the checks of all but those of the lowest three bidders received April 29, 1899, on said structures be returned to the respective bidders.

The motion prevailed nnanimously and it was so ordered.

The following is

THE REPORT:

"CHICAGO, May 3, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Your Committee on Engineering, having received from the Chief Engineer the tabulation of bids tendered on April 26th for the construction of the two bridges to be erected across the Chicago River at and near Taylor Street, in the City of Chicago, and the results of said tabulation having shown that the Pennsylvania Steel Company's bid is the lowest for the Railroad Structure, and that the bid of the Chicago Bridge & Iron Company is the lowest for the Taylor Street Structure, we recommend that the President and Clerk be authorized to enter into contract with the Pennsylvania Steel Company under the bid made by it for the Railroad Bridge and with the Chicago Bridge & Iron Company under the bid made by it for the Taylor Street Bridge as soon as the said respective companies shall have furnished bonds acceptable to the Finance Committee of this Board in the sums called for in the respective advertisements, specifications and contracts relating to said structures.

Respectfully submitted,

(Signed) Z. R. CARTER,
THOMAS KELLY,
FRANK WENTER,
B. A. ECKHART,
WM. BOLDENWECK,
JOS. C. BRADEN,
Committee on Engineering."

REPORT IN REFERENCE TO EMPLOYMENT OF W. M. HUGHES ON BRIDGE CONSTRUCTION.

Mr. Smyth, Chairman, presented, and the Clerk read, a report from the Committee on Engineering with reference to a communication from W. M. Hughes, offering to take charge of the bridge construction of the District; the report recommending that the President and Board of Trustees be authorized and directed to employ said Hughes, at a salary of $300 per month and his reasonable expenses, to take charge of the bridge department and superintend the construction of bridge work, under direction of the Committee on Engineering.

Mr. Smyth, seconded by Mr. Eckhart, moved that the report be adopted and the recommendations contained therein concurred in.

On roll call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—nine. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, May 1, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Your Committee on Engineering desires herewith to make report that the Committee has received from the President of the Board of Trustees a communication, addressed to him, from W. M. Hughes, Esq., regarding a proposition of said Hughes to take charge of the bridge construction of the District. The Committee advises that it has given special attention to this branch of the work of the District for some time past; and that it is of the opinion that the nature and importance of that particular work to the District is such that it requires constant attention and steady consideration of an experienced bridge engineer. The Committee has, therefore, deemed it expedient to engage the services of a bridge engineer for the District, and recommends as follows:

That the President of the Board of Trustees be authorized and directed to employ said W. M. Hughes at a salary of three hundred dollars ($300.00) a month, and his reasonable expenses, to take charge of the bridge department and superintend the construction of the bridge work of the District, under the direction of the Committee on Engineering, and that said Hughes be notified and directed to report all matters pertaining to his superintendency of said

work directly to the Committee on Engineering.

Respectfully submitted;

(Signed) THOMAS A. SMYTH,
Chairman.
Z. R. CARTER,
ALEX. J. JONES,
J. C. BRADEN,
B. A. ECKHART,
THOMAS KELLY,
FRANK WENTER,
WM. BOLDENWECK.
Committee on Engineering."

(One enclosure.)

ADJOURNMENT.

On motion of Mr. Wenter, seconded by Mr. Smyth, the Board then adjourned.

THOMAS S. BELL,
Acting Clerk.

PROCEEDINGS

—OF THE—

BOARD OF TRUSTEES

—OF THE—

SANITARY DISTRICT OF CHICAGO.

MAY 10, 1899.

OFFICIAL RECORD

Published by authority of the Board of Trustees of the Sanitary District of Chicago.

REGULAR MEETING.

The four hundred and thirty-seventh regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Wednesday, May 10, 1899, at 2 o'clock P. M.

On roll-call Messrs. Boldenweck, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—eight members, were present; Mr. Braden arriving subsequently.

President Boldenweck then called the Board to order.

MINUTES.

The minutes of the special meeting held May 3, 1899, were approved as printed, on motion of Mr. Kelly, seconded by Mr. Mallette.

PERMIT FOR CONNECTION OF MAIN CHANNEL WITH CHICAGO RIVER.

The President presented, and the Clerk read, a permit from the Secretary of War and Chief of Engineers of the U. S. A. to open the Main Channel of the Sanitary District and cause the water of the Chicago River to flow into the same, subject to certain conditions as set forth in the permit.

Mr. Wenter, seconded by Mr. Eckhart, moved that the same be printed and placed on file.

The motion prevailed unanimously and it was so ordered.

The following is

THE PERMIT:

"WHEREAS, By Section 10 of an act of Congress, approved March 3, 1899, entitled "An act making appropriations for the construction, repair and preservation of certain public works on rivers and harbors, and for other purposes," it is provided that it shall not be lawful to alter or modify the course, location, condition or capacity of the channel of

any navigable water of the United States unless the work has been recommended by the Chief of Engineers and authorized by the Secretary of War prior to beginning the same; and

WHEREAS, The Sanitary District of Chicago, a municipal corporation organized under the laws of the State of Illinois, has constructed an artificial Channel from Robey Street, Chicago, to Lockport, and has been heretofore granted permission by the Secretary of War to make certain improvements in the Chicago River for the purpose of correcting and regulating the cross section of the river so as to secure a flowage capacity of 300,000 cubic feet per minute with a velocity of one and one quarter miles an hour, it being intended to connect the said artificial Channel with the west fork of the South Branch of the Chicago River at Robey Street in the said City of Chicago; and

WHEREAS, The said Sanitary District of Chicago has now applied to the Secretary of War for permission to divert the waters of the said Chicago River and cause them to flow into the said artificial Channel at Robey Street as aforesaid; and

WHEREAS, The said Sanitary District of Chicago represents that such movable dams and sluice gates as are necessary to, at all times, secure absolute and complete control of the volume and velocity of flow through the Chicago River have been constructed.

Now, therefore, The Chief of Engineers having consented thereto, this is to certify that the Secretary of War hereby gives permission to the said Sanitary District of Chicago to open the channel constructed and cause the waters of Chicago River to flow into the same, subject to the following conditions:

1. That it be distinctly understood that it is the intention of the Secretary of War to submit the questions connected with the work of the Sanitary District of Chicago to Congress for consideration and final action, and that this permit shall be subject to such action as may be taken by Congress.

2. That if, at any time, it becomes apparent that the current created by such drainage works in the South and Main Branches of Chicago River, be unreasonably obstructive to navigation or injurious to property, the Secretary of War reserves the right to close said discharge through said channel or to modify it to such extent as may be demanded by navigation and property interests along said Chicago River and its South Branch.

3. That the Sanitary District of Chicago must assume all responsibility for damages to property and navigation interests by reason of the introduction of a current in Chicago River.

Witness my hand this 8th day of May, 1899.

(Signed) R. A. ALGER,
Secretary of War.

JOHN M. WILSON,
Brig. Gen'l, Chief of Eng., U. S. A."

[SEAL.]

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*VOUCHERS.

The Clerk presented the following vouchers:

ENGINEERING DEPARTMENT.

S. D. Childs & Co. (stationery)	$ 2 50
Goes Lithographing Company (envelopes)	6 00
John F. Higgins (printing)	8 00
Keuffel & Esser Company (drafting supplies)	10 29
Pearson Bros. (blue prints)	19 57
Wm. Feldmann (binding)	15 00
Isham Randolph (postage stamps)	36 00
Burke & James (photo supplies)	20 40
Robt. Stevenson & Co. (paints)	7 15
M. D. Rider & Co. (repairing typewriter)	3 60
Wygant & Ayers (rent Corwith, March, 1899)	12 50
J. H. Alexander (rent, Lockport, April, 1899)	17 00
Sibley Warehouse & Storage Company (storage)	30 00

The A., T. & S. F. Ry. Co. (track inspection)	$ 28 45	
Wm. Trinkaus (expense)	36 23	
H. B. Alexander (traveling and expense)	35 12	
Eugene Dietzgen Company (blue printing)	50 75	
Illinois Central Railroad Company, Lessee (bridge inspection)	313 89	
Donald Fraser (bridge inspection)	129 47	
		$ 781 92

CLERICAL DEPARTMENT.

Thayer & Jackson Stationery Company (stationery)		5 74

GENERAL ACCOUNT.

Thos. S. Bell (expense)	$ 9 43	
John F. Higgins (printing proceedings April, 1899	284 04	
Security Deposit Company (rent May, 1899)	458 33	
Dallemand & Co. (sundry supplies)	496 47	
		$ 1,248 27

POLICE DEPARTMENT.

Mrs. A. Hartwig (laundry)	$ 4 00	
D. C. McCarthy (expense)	8 90	
H. J. Doran (expense)	6 18	
		$ 19 08

MAINTENANCE ACCOUNT.

Chicago Engineering Supply Company (waste)	$ 9 83	
Illinois Oil Station (oil)	41 50	
H. B. Alexander (expense)	27 00	
Weaver Coal Company (coal)	331 66	
Weaver Coal Company (coal)	394 45	
		$ 804 44

CONSTRUCTION ACCOUNT.

Mason, Hoge, King & Co. (Section 8, railroad embankment)	$ 882 00	
Hayes Bros. (Section 16, May 1, 1899)	1,023 75	
Hayes Bros. (Section K, Belt Railway Bridge)	449 80	
Heldmaier & Neu (Section K, Romeo Bridge)	1,547 00	
Heldmaier & Neu (Section 17, May 1, 1899)	22,572 38	
Gahan & Byrne (Section 18. May 1, 1899)	13,871 29	
The A., T. & S. F. Ry. Co. (Section 8, track deviation)	104 49	
The A., T. & S. F. Ry. Co. (Section G, track deviation)	2,258 96	
Chicago T. T. R. R. Co. (Section O, Pan Handle Bridge)	72 26	
		$ 42,781 93
Grand total		$ 45,641 38

*To be paid by warrants, with interest coupons attached, drawn against the Tax Levy for 1899, as follows:

F. M. Blount, Treasurer (sundry persons, less than $50.00)	$ 400 39	
Construction Account (to contractors)	42,781 93	
All others, direct to creditors	2,459 06	
		$ 45,641 38

Mr. Wenter, seconded by Mr. Smyth, moved that the vouchers as read and shown above be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—eight. Nays—none.

Upon this result the President declared the motion carried.

REQUISITION.

The Clerk presented the following requisition:

No. 829, Law Department (stationery), $25.45.

Mr. Kelly, seconded by Mr. Jones, moved that requisition No. 829, as read and shown above, be allowed.

On roll call the vote stood: Yeas—

Messrs. Boldenweck, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—eight Nays—none.

Upon this result the President declared the motion carried.

WEEKLY REPORT ON EMPLOYES.

The Clerk presented a report, in accordance with the Rules, showing the number of persons in the employ of the District for the week ending May 6th, 1899, which was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, May 10, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the week ending May 6th, 1899, as the same have been reported to me:

Engineering department	79
Maintenance account	8
Clerical department	5
Law department	8
Treasury department	1
Police department	28
General	8
Total employes	132

Respectfully submitted,

(Signed) JOSEPH F. HAAS,

Clerk."

MONTHLY REPORT FROM CLERICAL DEPARTMENT.

The Clerk presented a report from the Clerical Department for the month of April, 1899, which was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, May 1, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I herewith submit the report of the Clerical Department for the month of April, 1899:

The total expenditure of the District for the month was $436,525.31, of which amount the sum of $137,934.44 was paid in 1899 Tax Levy Warrants, and the sum of $298,590.87 by the Treasurer of the District, for which no warrant was required. Of the 1899 Tax Levy Warrants issued the sum of $809.76 was placed in the hands of the Treasurer and regular warrants drawn in the aggregate for this amount against the same, as per authority of the Board. Of the amount paid by the Treasurer the sum of $286,233.68 was for 1898 Tax Warrants redeemed, and the sum of $12,357.19 for interest on warrants redeemed.

The total amount expended on account of, and charged to the Clerical Department during the month of April was $36.09 for general office expenses.

There are no outstanding liabilities agains the Clerical Department, and the expenditure for the present month will be about $1,000.

The total amount expended for account of, and charged to the General Account during the month of April was $1,361.09, divided as follows:

Rent for April	$ 483 33
Printing	468 96
Streams examination	406 55
General expenses	2 25
Total	$1,361 09

The expenditure for the present month for the General Account will be about $3,000.

Of the total amount of 1896 Tax Levy Warrants issued, there is now outstanding the sum of $12,709.35; of the 1897 Tax Levy Warrants issued, there is now outstanding the sum of $15,119.00; of the 1898 Tax Levy Warrants issued, there is now outstanding the sum of $1,597,552.30, and of the 1899 Tax Levy Warrants, there is now outstanding the sum of $397,744.90.

The following is a tabulated statement of total expenditures for the month of April, 1899.

ACCOUNT.	1899 Tax Levy Warrants.	Paid by Treasurer.	Total for Month.
Engineering Department	$ 2,636 51	.....	$ 2,636 51
Construction	89,432 52	.....	89,432 52
Clerical Department	36 09	.....	36 09
Law Department	1,565 55	.....	1,565 55
Land	8,672 94	.....	8,672 94
Treasury Department	15 25	.....	15 25
General	1,361 09	.....	1,361 09
Police Department	107 05	.....	107 05
Maintenance	899 84	.....	899 84
Capitalization and maintenance of bridges	33,207 60	.....	33,207 60
1898 Tax Warrants redeemed	.....	$286,233 68	286,233 68
Interest on Warrants redeemed	.....	12,357 19	12,357 19
Totals	$137,934 44	$298,590 87	$ 436,525 31

Respectfully submitted,

(Signed) JOS. F. HAAS, *Clerk.*"

ACTION ON COMMUNICATION FROM STREATOR AND THIRD VEIN COAL COMPANY.

On behalf of the Committee on Judiciary, Mr. Jones, seconded by Mr. Mallette, moved that the communication of the Streator & Third Vein Coal Company, by George C. Mastin, its attorney, dated December 12, 1898, and heretofore presented to the Board at the meeting held December 14, 1898 (page 5345 of the proceedings), be placed on file.

The motion prevailed unanimously and it was so ordered.

APPROVAL OF BOND ON CONTRACT FOR SUB AND SUPERSTRUCTURE OF BRIDGE FOR TAYLOR STREET IN THE CITY OF CHICAGO, AND RETURN OF CERTAIN CHECKS.

Mr. Carter, Chairman, presented, and the Clerk read, a report from the Committee on Finance in reference to the approval of the bond of the Chicago Bridge & Iron Company on the contract for the construction of the sub and superstructure of the bridge for Taylor street, in the City of Chicago, the report being accompanied by said contract and bond in duplicate, and recommending that said bond be approved by the Board of Trustees and that the checks submitted on behalf of the other bidders on said work be returned to said bidders respectively.

Mr. Carter, seconded by Mr. Wenter, moved that the report be adopted and the recommendations contained therein concurred in.

On roll call the vote stood: Yeas—Messrs. Boldenweck, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—eight. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, May 8, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—The Committee on Finance, to which was referred, at the meeting of the Board of Trustees held on the 3rd inst. (page 5671 of the proceedings), the bond of The Chicago Bridge and Iron Company, accompanying its contract for the work awarded to it on said date, desires to report that the Committee has examined said bond and has inquired into the sufficiency of the surety thereon, and is of the opinion that said bond is in proper form and that the surety thereon is sufficient.

The Committee, therefore, recommends that said bond be approved by the Board of Trustees; and that the checks submitted on behalf of the other

bidders on said work be returned to said bidders respectively.

Respectfully submitted,

(Signed) Z. R. CARTER,
Chairman.
FRANK WENTER,
ALEX. J. JONES,
THOMAS KELLY,
Committee on Finance."

(Accompanied by contract and bond in duplicate.)

The following is

THE CONTRACT:

"SANITARY DISTRICT OF CHICAGO.

Contract and specifications for the substructure and superstructure of a highway rolling lift bridge, of the Scherzer type, crossing the south branch of the Chicago River at Taylor street in the City of Chicago, to be built for the Sanitary District of Chicago.

THIS AGREEMENT, Made and entered into this eighth day of May, A. D. 1899, by and between the Sanitary District of Chicago, of the first part, and Chicago Bridge and Iron Company of the City of Chicago, in the State of Illinois, of the second part.

A—

WITNESSETH: That the said party of the second part has covenanted, contracted and agreed, and by these presents does covenant, contract and agree with the said party of the first part, for the consideration of the payments to be made as provided for herein, to the said party of the second part by the said party of the first part, and under a penalty expressed in a bond bearing even date herewith, at his own proper cost and expense to do all the work and to furnish all material, tools, labor, and all appliances and appurtenances called for by this agreement, in the manner and under the conditions hereinafter stipulated, that are necessary to the complete doing of the work known and distinguished by the specifications herein contained, and the plans accompanying them, as the Highway Rolling Lift Bridge for the Sanitary District, Chicago, crossing the South Branch of the Chicago River at Taylor street in the City of Chicago.

B—

It is further covenanted, contracted and agreed, that the work shall be executed under the direction and supervision of the Chief Engineer of the Sanitary District of Chicago, and his properly authorized agents, by whose measurements and calculations the quantities and amounts of the several kinds of work performed under this contract shall be determined, and on whose inspection all work shall be accepted or condemned. The said Chief Engineer and his properly authorized agents shall have full power to reject or condemn all materials furnished or work performed under this contract which do not fully conform to its spirit and to the terms and conditions herein expressed; and the Chief Engineer shall decide every engineering question which may arise between the parties hereto relative to the execution thereof and his decision shall be final and binding upon both parties.

C—

The Scherzer Rolling Lift Bridge Company and the Chief Engineer of the Railroad Company will examine and check the shop plans for this bridge and will also supervise its construction and erection, so that the same may be constructed in conformity with the designs, plans and specifications of the Scherzer Rolling Lift Bridge Company. All shop plans and all work and material must be approved in writing by the Scherzer Rolling Lift Bridge Company, in addition to the approval of the Chief Engineer.

D—

Wherever the words "Sanitary District" are used in this contract they shall be understood to mean the Sanitary District of Chicago as represented by the Board of Trustees of the Sanitary District, or their duly authorized and accredited agents.

Wherever the words "Chief Engineer" or "Engineer" are used herein they shall be understood to mean the Chief Engineer of the Sanitary District of Chicago, or his properly authorized agents, limited by the particular duties intrusted to them.

Wherever the word "Contractor" is used herein it shall be understood to mean the person or persons or co-partnership or corporation entering into the contract as party of the second part.

The following ordinance passed by the Board of Trustees of the Sanitary District of

Chicago, June 23d, 1897, is hereby made a part of this contract, and the party of the second part agrees to comply with its provisions, and in case of violation thereof, to be subject to the penalties therein authorized to be imposed:

"*Be it ordained by the Board of Trustees of the Sanitary District of Chicago:*

"SECTION 1. That in the preparation of all future specifications for contracts for the construction of the Main Channel and auxiliary works, the Engineering Department shall provide that such contracts shall be executed in conformance with the law constituting eight (8) hours a legal day's work in all contracts under the Sanitary District of Chicago, and that in the employment of labor contractors shall be required and specifically agree to give preference to union labor.

"SEC. 2. That all contracts hereafter executed for the works of the Sanitary District of Chicago shall contain provisions constituting eight (8) hours a legal day's work, and forbidding the employment of any employe or employes for a longer period than eight (8) hours in any twenty-four (24) hours, and that said contract shall vest specific authority in the Police Department of the Sanitary District of Chicago to exercise supervision for the enforcement of this provision, and shall provide that the Board of Trustees of the Sanitary District of Chicago shall be empowered in all cases of violation of said eight (8) hour law, to deduct and retain from any money accruing to said contractors a sum as liquidated damages at the rate of five dollars ($5.00) per hour for each employe who shall be required to work in excess of eight (8) hours per day by any contractor on said Canal."

SPECIFICATIONS FOR SUBSTRUCTURE.

The accompanying drawings form part of these specifications. The figured dimensions on the drawings are to be taken whenever they do not agree with the dimensions obtained by scaling from such drawings.

QUALITY OF MATERIAL.

Stone.

1. The stone used shall be either Pontoosiac, Anamosa, Bedford stone, or an equally good stone, the quality subject to the approval of the Chief Engineer. It shall be sound and durable, free from drys, shakes or flaws, and of a character that will withstand the action of the weather. All stone must be quarried without the excessive use of explosives, and shall be taken out whenever practicable by the use of plug and feather. It shall be quarried in time to season against frost before being used.

Cement.

2. The best Portland and natural cements shall be used on this work, brand and quality to be subject to the approval of the Chief Engineer. The weight per cubic foot of Portland cement shall be not less than one hundred (100) pounds, and for natural cement shall be not less than sixty-seven (67) pounds. The development of tensile strength for Portland cement shall be not less than four hundred (400) pounds per square inch, and for natural cement not less than one hundred (100) pounds per square inch, after being exposed one (1) day in air and six (6) days in water. All lumpy, dirty or damaged cement shall be rejected; also damaged or short weight packages.

Sand.

3. The sand used shall be coarse, clean and sharp, free from all clay, loam or gravel, and shall be well screened and of a quality approved by the Chief Engineer.

Mortar.

4. When Portland cement mortar is used for beds and joints, it shall be mixed in proportions of one (1) part of cement to three (3) parts of sand. When mortar is used for facing pits and for grout it shall be mixed one (1) part cement and two (2) parts sand. When it is used for pointing one (1) part cement and one (1) part sand.

Piles.

5. Piles to be used of white or burr oak, sound and straight, not less than fourteen (14) inches at the butt and not less than nine (9) inches at the small end, with a uniform taper.

Timber.

6. Timber used in foundations shall be white oak, sound, straight and free from wind shakes.

Sheet Piling.

7. Sheet piling and bracing may be of any timber suitable for the purpose and shall be of such dimensions and placed as directed by the Engineer.

CLASS OF WORK.

Excavation.

8. All foundations shall be prepared to re-

ceive the masonry by the Contractor, who shall make excavation to such a depth and width as directed by the Engineer. The Contractor shall also, where necessary, supply and operate, free of cost, all pumps in order to keep the foundation excavation dry. The Contractor shall provide, drive, frame and place all sheet piling or other timber work necessary to the successful excavation and protection of the foundation excavation, and shall maintain the same until masonry shall have been built. All material excavated from the foundations, except such as shall be needed for filling back of and around the masonry of the new bridge, shall be removed entirely from the bridge site and disposed of as the contractor may see fit, free of all cost or expense to the Sanitary District of Chicago; but none of the material so excavated shall be deposited in the Chicago River nor any navigable waters, save as permitted by the United States Engineer Department. All refilling ordered by the Engineer shall be done without extra cost to the Sanitary District.

The contractor shall submit a lump-sum bid for the removal of the present swing bridge abutments and their protections, the dock which would interfere with the placing of the new piers and such parts of the present viaducts as will be replaced by the new bridge, as indicated on the plans; the material removed to become the property of the contractor. The removal of the present swing bridge, with the center pier and its protection pier, is not a part of this contract.

The highway traffic across this bridge will be suspended until the new bridge is completed.

Piles.

9. All piles must be driven by a steam hammer, unless otherwise directed by the Engineer. If in the opinion of the Engineer, any pile proves imperfect or becomes unfit for use under the hammer, or is not driven straight or plumb, it must be removed by the contractor without extra cost. If so directed by the Engineer, the piles shall have the bark removed. Should any of the piles raise or change their position after being driven, they shall, if so directed by the Engineer, be redriven at the expense of the contractor. All piles must be cut level and at proper elevation. Payment for piles to be on the following basis: 1st: Per lineal foot for all piles delivered, on the order of the Engineer, at the site of the work. 2nd: For all piles driven, per lineal foot below the cut-off line, the prices designated on the bid.

Timber.

10. Payment for timber used to be per one thousand (1,000) feet B. M., in the completed work, as called for by the bills of material given by the Engineer, which bills shall cover the waste ordinarily incident to framing. All materials (coffer dams, sheet piling, piles, rubbish, etc.) not required in the finished structure shall be removed by the contractor without extra cost, as directed by the Engineer.

Portland Cement Concrete.

11. Concrete shall be made in the proportion of one (1) part of cement, three (3) parts of sand and six (6) parts of broken stone. It shall be mixed by machinery, if so directed by the Chief Engineer, or if mixed by hand it shall be done upon a suitable platform. Care must be taken to first thoroughly mix the dry cement and sand, after which stone shall be added, together with a proper amount of water, all to be thoroughly mixed; water to be applied by a sprinkling pot. On being placed, the concrete shall have a wetness such as to permit quaking or mobility likened to liver. The stone for concrete of a quality approved by the Engineer, broken into angular pieces of a size small enough to pass thorough a ring one and one-half (1½) inches in diameter, and be entirely free from dust, sand dirt and any foreign substance. The stone must be thoroughly drenched with clear water before mixing with the mortar. The concrete is to be deposited in layers not exceeding six (6) inches in thickness, as directed by the Engineer, and to be thoroughly tamped or rammed.

Natural Cement Concrete.

12. Concrete shall be made in the same manner as specified above for Portland cement concrete, except that the proportion shall be one (1) part cement, two and one-half (2½) parts sand and five (5) parts of broken stone.

Masonry.

13. All masonry shall consist of pitched draft, rock-faced work, built in regular courses, no course to be less than twelve (12) or more than thirty (30) inches in vertical height, and in no case shall a course overlie one of less thickness. The rock face shall not project less than one (1) or more than three (3) inches beyond the pitch-line joints.

14. Abutments and piers shall have chiseled draft two (2) inches in width on corners only. The stone shall be rectangular in form. No stretcher shall be less than three (3) or more than six (6) feet long, and the upper or lower bed shall be of a width not less than one and one-half (1½) times the vertical height.

15. Headers must be not less in length than four (4) feet or three (3) times the thickness of the course when the width of the wall will admit of it; and always at least one and one-half times the vertical height.

16. All stones must be laid on their natural beds, the largest bed down; the beds well dressed, parallel and true, and as large as the stone will admit. The beds and sides of the stones to be cut before being laid, so as to form joints not exceeding one-half (½) inch in thickness.

17. The joints shall be horizontal and vertical, and the vertical joints shall break not less than twelve (12) inches. Vertical joints shall be dressed close for at least twelve (12) inches back from the face.

18. The masonry will consist of headers and stretchers alternately; at least one-fourth (¼) of each course shall be headers. Each header shall be arranged so as to overlie a stretcher in the course below, and the headers and backing shall be arranged so as to form a bond throughout the masonry; no break to be less than twelve (12) inches.

19. All masonry must be neatly pointed with cement mortar, finely tempered. No masonry shall be covered until it has been inspected and approved by the Chief Engineer, and any defective work shall be removed and rebuilt by the Contractor at his own expense.

20. All stone must be moistened before being laid and before any succeeding course is placed upon it.

21. No spalls shall be used in horizontal joints.

22. All coping must be dressed and set level and to exact elevation given by the Engineer. Care must be used in handling stone not to injure the joints of those already laid; and in case a stone is moved after being set and the joint broken, the stone must be taken out, the mortar thoroughly cleaned from the beds and joints, and the stone reset. Masonry and backing to be laid in good full beds of mortar, the face stones of each course of masonry brought to a bearing with a wooden mall, and the interior of each course thoroughly jointed and levelled off before the next course is started.

23. Masonry shall not be laid in freezing weather without written permission from the Chief Engineer. Any masonry so laid in freezing weather shall have joints raked out and pointed in the spring at the expense of the Contractor. Should masonry be laid in freezing weather, the stone shall be sufficiently warmed to remove all ice from surface, and the mortar mixed with brine, made by dissolving one (1) pound of salt to eighteen (18) gallons of water when the temperature is thirty-two (32) degrees Fahrenheit, adding one (1) ounce of salt for each degree the temperature is below thirty-two (32) degrees.

Pointing.

24. All masonry shall be pointed, so as to fill the joints solid. The surface of the wall to be scraped clean and the joints freed of all mortar to a depth of one and one-half (1½) inches, and refilled solid by using proper ramming tools. Joints must be well wet before pointing.

Cramps.

25. Cramps shall be of such number and dimensions as shown on plan; these cramps to be fitted into the course after it is laid and to be countersunk; and all the holes shall be filled with grout made of Portland cement after the cramps are inserted. The cost of furnishing and placing these cramps shall be included in the price bid per cubic yard for masonry.

Protection.

26. The large corner clumps of the protections shall be of forty (40) foot oak piles securely bound together with five (5) laps of three-quarter (¾) inch chain, spiked all around with six by one-fourth (6x¼) inch wrought iron spikes. The piles in front and flank aprons will be of oak forty (40) feet long and spaced as shown. Caps to be twelve by twelve (12x12) inch oak, and wales of eight by twelve (8x12) inch oak, all secured as shown.

Measurement.

27. Measurement of all masonry shall be by the cubic yard, and payments shall be made upon the actual cubical contents of the completed masonry within the lines as shown on plan.

SPECIFICATIONS FOR SUPERSTRUCTURE.

Work Included.

1. The work to be done under this contract consists in furnishing all materials and labor and erecting complete in place, ready for operation, the superstructure, operating machinery, locks, electrical equipment, houses, etc., wooden floor, sidewalks and railings, with necessary spikes, bolts and washers, as well as all iron and steel in the substructure for the above proposed bridge; in fact, everything to put the bridge in complete working order, except the motive power, which will be electricity furnished at the switch-boards in the operators' houses.

Specifications.

2. The General Specifications for Steel Highway Bridges and Viaducts, by Theodore Cooper, 1896 Edition, shall govern in regard to quality of material, proportion of parts, general details of construction, workmanship, painting, erection and inspection and in all other respects, except in the changes and additions herein specified.

General Plans.

3. The structure shall be built in accordance with the general plans accompanying these specifications, which general plans shall be considered a part of these specifications. These general plans shall be carefully checked by the Contractor before beginning work. Should any errors be discovered, the Chief Engineer's attention shall be called to the same and corrections made, after which the Contractor shall be responsible for all errors which may occur, or which may have occurred.

Shop Plans.

4. All shop plans shall be made by and at the expense of the Contractor and shall be submitted to the Chief Engineer for approval before beginning work. Such shop plans shall have a uniform size of twenty-six (26) inches by forty (40) inches, inside border lines, with a border margin of one-half (½) inch. When submitted for approval one complete set of prints of such shop plans shall be sent to the Sanitary District of Chicago and one complete set to the Scherzer Rolling Lift Bridge Company. The Contractor shall furnish the Sanitary District of Chicago with six complete sets and the Scherzer Rolling Lift Bridge Company with two complete sets of blue prints of these approved plans, free of cost. No alterations of approved plans will be permitted to be made by the Contractor without the written consent of the Chief Engineer. The approval of the Chief Engineer will not relieve the Contractor from the responsibility of errors thereon.

QUALITY OF MATERIAL.

Wrought Iron.

5. All iron used for rivets shall have an ultimate tensile strength of not less than forty-eight thousand (48,000) pounds per square inch, an elastic limit of an least twenty-six thousand (26,000) pounds per square inch, and an elongation of at least twenty (20) per cent in eight (8) inches, and be so ductile that when bent cold through one hundred and eighty (180) degrees and hammered down flat on itself, it shall show no sign of fracture on convex side of curve.

Steel.

6. All steel shall be uniform in quality and made by the "Open Hearth" process.

Structural Steel.

7. All structural steel shall be medium steel, uniform in quality, and shall be made by the "Open Hearth" process. Tests shall be made upon pieces cut from the finished material, and shall be not less than one-half (½) square inch in sectional area. Two (2) pieces, one (1) for tensile test, and one (1) for bending test, shall be furnished for each blow or cast, and so selected that each heat or furnace full of billets, blooms or slabs shall be represented by at least one (1) test to prove the condition of the metal after reheating, rolling, etc. When tested in specimens as above, medium steel shall have an ultimate tensile strength of from sixty thousand (60,000) to sixty-eight thousand (68,000) pounds per square inch, an elastic limit of not less than thirty-six thousand (36,000) pounds per square inch, shall elongate not less than twenty-five (25) per cent. in eight (8) inches, and show a reduction of area at point of fracture of not less than forty (40) per cent. The test piece must also bend cold one hundred and eighty (180) degrees around a curve whose diameter is equal to the thickness of the piece without crack or flaw on convex side of bend. A hole punched for a three-quarter (¾) inch rivet, one and one-half (1½) inches from the edge of plate, shall be capable of being enlarged by drifting to one and one-eighth (1⅛) inches in diameter without sign of fracture.

Rivet Steel.

8. Rivet steel shall have an ultimate strength of fifty thousand (50,000) to fifty-eight thousand (58,000) pounds, and an elastic limit of not less than fifty-five (55) per cent. of the ultimate; an elongation of not less than twenty-seven (27) per cent. in eight (8) inches, and must bend one hundred and eighty (180) degrees flat on itself without sign of fracture on the convex side of the bend.

Rivets.

9. All hand driven rivets, whether shop or field, shall be of the best quality of rivet iron, as specified.

10. Specimens taken from all grades of steel, after being heated to a light cherry red (as seen in the dark) and quenched in water of eighty-two (82) degrees Fahrenheit, must conform to the bending requirements above.

Chemical Analysis.

11. The chemical analysis for carbon and phosphorus of each blow or cast must be furnished to the Engineer, or his inspectors, before any of the material rolled from said blow or cast is shipped from the mill. Phosphorus must not exceed eight one-hundredths (.08) per cent. for acid steel, or six one hundredths (.06) per cent. for basic steel.

Chippings and Alterations.

12. All blooms, billets or slabs shall be examined for surface defects, flaws or blow holes before being rolled into the finished sections, and such chippings and alterations made as will secure perfect solidity in the finished sections.

Marking.

13. The original blow or cast number must be painted or stamped on all blooms, billets or slabs, in order to identify the material throughout the various processes of manufacture; and the original blow or cast number, together with the furnace heat number, must be stamped on each piece of finished material from said blow or heat.

Finish.

14. All finished, rolled material must present a smooth, clean surface, free from buckles, flaws, cracks, ragged edges or any other defects, and must be straight throughout and true to section.

Brittle Steel.

15. No steel which proves brittle shall be used under any circumstances; if it develops this character at any stage of its manufacture, it shall be at once condemned and other material used. The object of the more particular clauses, hereto relating, being to guard against the possibility of the use of this class of metal.

Steel Castings.

16. All steel castings shall have an ultimate strength of not less than sixty-two thousand five hundred (62,500) pounds per square inch, an elastic limit of not less than thirty thousand (30,000) pounds per square inch, shall elongate not less than fifteen (15) per cent. in eight (8) inches and show a reduction at point of fracture of not less than 20 per cent. The amount of phosphorus contained shall not exceed eight one-hundredths (.08) per cent. All steel castings shall be sound and free from blow holes and roughness, sponginess, pitting, shrinkage-cracks and other cracks, cavities, etc., and shall be thoroughly annealed according to the best practice. Each cast shall be so made that sufficient number of test pieces can be cut as to enable the Engineer or Inspector to satisfy himself of its quality.

Machinery Steel.

17. The materials used for shafting and forgings, except where otherwise specified, shall be of "medium" basic or acid "Open Hearth" steel, of a good finish and uniform quality, in which phosphorus shall not exceed six one-hundredths (.06) per cent., and sulphur five one-hundredths (.05) per cent. When tested in specimens of not less than one-half square inch section, it must show an ultimate strength of sixty thousand (60,000) to sixty-eight thousand (68,000) pounds per square inch, with an elastic limit of at least forty-eight (48) per cent. of the ultimate, and an elongation of at least twenty-five (25) per cent. in eight (8) inches, and it must bend, cold, one hundred and eighty (180) degrees over a diameter equal to its thickness.

Phosphor Bronze.

18. Phosphor bronze shall be of the best quality for the purpose for which it is to be used. The castings shall contain eighty-eight (88) per cent. of copper and twelve (12) per cent. of phosphorized tin; the phosphorized tin to contain five (5) per cent. of phosphorus. Upon each casting shall be cast suitable test pieces, which, in breaking, must show a good uniform metal, and when broken in

testing machine shall show at least forty thousand (40,000) pounds ultimate tensile strength.

Babbit Metal.

19. All the babbit metal used shall have the following composition: Fifty (50) parts tin; one (1) part copper; five (5) parts antimony.

Counter Weight.

20. The counter weight blocks may be of sash weight, or any other metal equally as good. They must be smooth and true to dimensions, within one-fourth (¼) inch, and free from cracks and blow holes.

Live Load.

21. The live load used in calculations shall be Cooper's Specifications for Steel Highway Bridges and Viaducts, 1896 Edition, Class A1.

WORKMANSHIP.

Character of Work.

22. More than ordinary care must be taken to have all workmanship strictly first-class The bearings for all shafts must be set to a true line, parallel, and the proper distance between centers. No shimming will be allowed. All bolt holes for connection to the structure of any part of the work to be done under these specifications must be drilled in the field, and all bolts must be turned to a driving fit. All shafting must be turned, care being taken to leave proper fillets at points where the diameter is reduced. All parts of the machinery shall be so designed as to be readily removed and replaced by new parts.

Nut Locks.

23. Positive nut locks for all bolts shall be furnished, subject to the approval of the Chief Engineer.

Gear Wheels.

24. All gear wheels must be bored to closely fit their axles or shafts, and properly keyed to the same. They shall be of cast steel as herein specified, and one duplicate of each different gear shall be furnished by the Contractor, if ordered by the Chief Engineer, at the price per pound named in the bids.

Bearings.

25. All bearings, unless otherwise shown on plans, shall be babbitted. The bearings for the thrust blocks shall be faced and fitted tight.

Oil Cups.

26. Proper provision must be made for oiling all bearings, using oil-cups that will be acceptable to the Chief Engineer.

Irregularities.

27. Any irregularities that may occur in the teeth of the gear or rack castings must be chipped to template.

Wrenches.

28. Suitable wrenches to fit the nuts of all bolts shall be furnished by the Contractor without extra charge.

Track Girders.

29. The web plates and top flange plates and angles of the track girders must be faced on top; the cast steel track plate must get perfect bearing on them. The stiffener angles must have perfect bearing under the flange angles. The cast steel track plate must be planed on top between the teeth—see Sheet 11—E—15 and 11—E—16, and all over the bottom surface and the projecting teeth on all four sides to true width and pitch.

Segmental Girders.

30. The segmental girders, with their track plates and the several posts connecting to them, must be assembled in the shop and all rivet holes reamed to proper size and all pieces properly marked before taking them apart. The web plates of these segmental girders, and the flange plates and angles must be faced to be absolutely true to the circle called for and out of wind. The track plates must be faced on top, bottom and ends to get a perfect bearing on them and also present a true circular surface on the outside. The square holes in the track plates which engage with the teeth on the track girders must be cut out to exact pitch, and the width must be such that the lateral play is not more than ⅛ inch.

Operating Struts.

31. The operating struts must be perfectly true and straight for their full length. The cast steel rack forming a part of them must be planed on both sides and both ends on center top rib and on the edges at the sides of the teeth to the height of the pitch line and riveted up so that the pitch is uniform and the pitch line absolutely straight. The pin holes must be bored exactly at right angles with the center lines of the strut and parallel with the center line of the teeth. The several pieces of rack must be examined carefully and if any difference is found be-

tween them, those varying the same should be placed so in the struts that they come opposite each other. The cast steel racks must all be placed by measuring from the center of the pin and no variation of more than one thirty-second (1-32) inch will be allowed.

ELECTRICAL EQUIPMENT.

Locks.

32. The center lock shown on Sheet 11-C-9 consists of a long tongue fastened between the members of each top chord of Leaf No. 1 which has one controller extending into the members of the top chord of Leaf No. 2 which has two controllers, and resting on a diaphragm between the members of Leaf No. 2. It also consists of a short extension of the members of the top chord of Leaf No. 2, resting on brackets fastened to the members of Leaf No. 1. In operating the bridge, Leaf No. 2 will be lowered first to a position in which the brackets of Leaf No. 1 will clear the extension of Leaf No. 2 within a few inches; then leaf No. 1 will be lowered until its tongue touches the diaphragm of Leaf No. 2, after which both leaves will come down together. Indicators must be provided which will show the position of each leaf during operation to each operator, day and night.

For each leaf of the bridge there shall be two rear locks located and attached as shown on sheet 11-D-6. The rear locks are applied by gravity and opened by solenoids, each solenoid to have a lifting capacity of three hundred (300) pounds over and above the weight of its iron core and lock, and a stroke of about six (6) inches.

The locks must be operated from the operators' houses by independent switches, permitting the operator to open the locks when the operating struts are forcing the bridge down and keep the locks open when the bridge is opened. The rear lock of Leaf No. 1 must be fitted out with submarine electric connections to be operated in the manner described above from either of the two operators' houses. Indicators must be provided which show the position of the locks to the operators, day and night, and the position of the rear lock on Leaf No. 1 must be indicated in the same manner to the operator on the opposite side.

Brakes.

33. Each leaf of the bridge shall be provided with a band brake, the wheel of which shall be made of cast steel, the face to be turned. The brake band shall be of steel, lined with vulcanized fibre. The brake shall be worked by electric power, braking automatically when the current operating the bridge is cut off. One duplicate band brake shall be furnished by the contractor. An auxiliary hand-lever band brake shall be provided for each leaf.

Motors.

34. Each leaf of the bridge shall be operated by one electric motor, located and attached as shown on Sheet 11-D-6. These motors shall be of the railway type, series wound, single reduction, multipolar, with four salient poles, water-proof, with steel frame and iron-clad armature; each to have a capacity of twenty-five (25) H. P. at normal speed and 500 volts, and to be capable of carrying an over-load of 33⅓ per cent for half an hour, or 50 per cent for five minutes, without injurious heating. The armature speed to be not more than 600 revolutions per minute when twenty-five (25) H. P. is being delivered by the motor at 500 volts. With each motor shall be furnished a cut pinion and gear with a reduction of about 1-3. A removable gear case shall be furnished with each motor. The motor gears shall be attached to the three and one-half (3½) inch driving shaft, shown on Sheet 11-D-6. The Contractor shall furnish extra armature, field coil, pinion and split gear, without extra charge.

Pumps and Auxiliary Motors.

35. Two pumps and two electric motors for operating such pumps shall be furnished by the Contractor and placed one on each side of the river. They shall be of such size and capacity as to pump the counter-weight wells, if filled with water, dry in one hour. They shall be of such design and detail as will meet the approval of the Chief Engineer and the Scherzer Rolling Lift Bridge Company.

Controllers.

36. One (1) controller, to be placed in each operating house to govern the main operating bridge motors, shall be of the reversible type, fitted with a device for blowing out, and shall be capable of varying and maintaining the speed of the two (2) motors from slow speed at the starting point to a maximum speed when full on, without sparking and without shock or jar. It shall be of ample carrying capacity to transmit for one-half (½) hour without heating thirty-three and one-third (33⅓) per cent above the normal amount re-

quired by the motors at full load, or transmit for five (5) minutes fifty (50) per cent above the normal amount required by the motors. An additional controller, fulfilling the same requirements, shall be provided and placed in the operating house on the side of the river designated by the Chief Engineer, and so connected by submarine cables, switches, etc., as to be able to control the leaf of the bridge on the opposite side of the river. Care shall be taken to place the long tongue of the center lock on the leaf of the span opposite this additional controller.

Wiring and Cables.

37. All wiring from the end of the supply wire on the switchboard in the operating houses on each side of the river, shall be furnished by the contractor. All wiring between the switchboards, motors, signals and lights, except the wiring within the operating houses, shall be rubber covered and put up securely on porcelain insulators. Between the switchboards in the operating houses shall be furnished iron armored submarine cables of sufficient insulation and capacity to carry safely the necessary current in strength and frequency to perform the various operations of the motors, locks and brakes as designated above. All this work to be subject to the approval of the Chief Engineer and of the Scherzer Rolling Lift Bridge Company.

Lights.

38. In each of the operators' houses on each side of the river shall be placed five (5) sixteen (16) candle power lights, and ten (10) additional lights with waterproof sockets shall be placed on each side of the river about the machinery at such points as will be designated by the Scherzer Rolling Lift Bridge Company.

Cut-Outs.

39. An automatic circuit breaker shall be placed between each feeder and the switchboard. Each submarine cable, each line to motors, each line to solenoids, and each lighting circuit shall be protected by suitable cut-outs, adapted to five hundred (500) volts and the load of the motor.

Switches and Boards.

40. Suitable switches shall be provided for each motor circuit and for each supply wire. The switches to be of ample carrying capacity for their respective loads, and to be be mounted on a suitable switchboard, which shall be placed in a convenient position in each operator's house.

General.

41 All switches, cut-outs and buttons shall be suitably named and labeled, as directed, indicating their office. A voltmeter, equal to the Weston in quality, shall be placed in each operators' house on the switchboard. The Contractor shall also provide and place on each switchboard, one (1) ammeter reading to one hundred and fifty (150) amperes, and one (1) fifty thousand (50,000) ohm magneto testing bell.

Operators' Houses, Stairways, Etc.

42. On each side of the river, located as shown on general plan, sheet 11-B-8, shall be built and secured in place an operators' house, to be of such general dimensions and appearance as shown on Plan 11-C-17. All stairways and walks of wood from the operating house to the machinery, and from the machinery to the ground shall be provided and placed subject to the approval of the Chief Engineer and of the Scherzer Rolling Lift Bridge Company.

Patterns.

43. All patterns for castings shall be the property of the City of Chicago, and shall be delivered by the Contractor where directed by the Chief Engineer.

Extra Inspection.

44. Should the preparation of the material for this structure be widely distributed, or should unneccessary delays in getting out the same, or delay in the required date of final completion occur, the cost of extra inspection shall be borne by the Contractor; the Chief Engineer being sole judge of what is deemed extra inspection.

Maintenance.

45. The Contractor will be required to maintain the work for a period of twelve (12) months after the same shall have been completed to the satisfaction of the Chief Engineer; keeping the same in perfect repair during that time against all damages of wear and tear due to imperfect material or faulty workmanship which may be discovered under the legitimate use or operation of the bridge. He shall be required to execute a bond in the sum of fifteen thousand ($15.000) dollars for the faithful performance of this before receiving a final payment of his contract.

Duplicate Castings.

46. The Contractor must furnish such duplicates of the finished castings, as directed by the Chief Engineer, at the price per pound named in the bids.

Painting.

47. All of the iron work before leaving the shops shall receive one good coat of boiled oil well rubbed in and surplus oil taken off.

In the riveted work, the surfaces coming in contact shall be painted with two coats of red lead paint. Bottom of bed plates, bearing plates and any parts which are not accessible for painting after erection, shall have two (2) coats of paint of the same brand.

After the structures are erected, the iron work shall be thoroughly and evenly painted with two (2) additional coats of red lead paint. The first coat to be pure red lead (ground dry) and raw linseed oil, in proportions thirty-three (33) pounds of red lead to one (1) gallon of oil. The second coat shall be in proportions of thirty-three (33) pounds of red lead to one (1) gallon of oil and one (1) pound of best lamp black to each six (6) gallons of oil used.

Paint must be delivered at the bridge site at least ten (10) days in advance of the time it is to be used, and samples must be submitted to the Engineer for approval as to quality and color.

No painting will be permitted to be done n wet or freezing weather. In case any paint is washed off before becoming dry, the work must be repainted to the satisfaction of the Chief Engineer, at the Contractor's expense.

All turned or planed surfaces must receive a coat of white lead and tallow before leaving the works.

Camber.

48. The trusses of the bridge shall be given such a camber that, under the full live-load, the floor of the bridge will be perfectly level.

Name Plates.

49. Two (2) name plates sixteen by twenty-six (16x26) inches shall be furnished by the Contractor. These plates shall bear the following inscription: "Invented by William Scherzer, C. E. Patented, December 26th, 1893. Designed by the Scherzer Rolling Lift Bridge Company, Chicago, Illinois." Two (2) additional plates shall be inscribed as directed by the Chief Engineer. All plates to be placed on the structure as directed by the Chief Engineer.

Shipping.

50. All parts shall be carefully loaded so as to avoid injury in transportation and shall be at the Contractor's risk until erected and ready for traffic. All screw ends shall be wrapped with twine before shipment. All pins and small parts must be securely boxed and the boxes plainly marked. The weights of large pieces must be marked on them. The invoices shall state the contents of each box and the weight and description of each piece that is not boxed, and three copies of each invoice shall be furnished the Sanitary District of Chicago.

Erection.

51. The Contractor shall furnish all staging and false work, shall erect and adjust all the metal work, shall furnish and put in place all floor timbers, timber guards, and place and secure in place all masonry bolts. The Contractor shall so conduct all his operations as not to impede the operations of the railroads or interfere with the work of other contractors, or close any thoroughfare by land or water, except by written consent of the Chief Engineer. The Contractor shall assume all risks of accidents to men or material prior to the acceptance of the finished structure. The Contractor must also remove all false work, piling and other obstructions, or unsightly material produced by his operations.

Final Acceptance.

52. Any material or workmanship which does not satisfy the requirements of these specifications may be rejected by the Chief Engineer of the Sanitary District, the Commissioner of Public Works or by the Scherzer Rolling Lift Bridge Company at any time before the final acceptance of the work, and the Contractor shall make good all deficiencies at his own cost. The fact that the authorized inspectors have accepted said material or workmanship shall not make the Sanitary District liable for extra cost above that specified in the contract for replacing same with material or workmanship accepted by the Chief Engineer on final acceptance.

GENERAL CONDITIONS.

Changes in Plans.

53. The amount of masonry figured from

the plans is approximate, and the Sanitary District reserves the right to make alterations in the line, grade, plan, form or dimensions of the work herein provided for, either before or after beginning the construction thereof; provided, that if alterations are made the general character of the work as a whole is not changed thereby. If such alterations diminish the quantity of work to be done, they shall not constitute a claim for damages nor for anticipated profits on the work that may be dispensed with; if they increase the amount of work, such increase shall be paid for according to the quantity of work actually done, and at prices and rates established for such work under this contract. Notice of change of plan must be given to the Contractor in writing, and it is expressly agreed that no alterations or additions or extra work are to be paid for unless directed in writing.

Extra Work.

54. All claims for extra labor or material furnished by the Contractor, or for damages from any cause whatever, must be reported to the Engineer at the time such labor or material is furnished or such damages occur, and they must also be presented to him in writing at the end of the month: provided, that nothing shall be paid for as extra work that can be classified under any of the heads upon which prices are fixed by this contract. Whenever work is required to be done which is not now contemplated or covered by the prices hereinafter given, the Committee on Engineering shall fix such prices for the work as they shall consider just and equitable, and the Contractor shall abide by such prices, provided he enters upon such work with a full knowledge of the prices so fixed by the said Committee; but if the contractor declines executing said work at the prices fixed by said Committee, then the Sanitary District may enter into contract with any person or perso. s for its execution the same as if this contract had never existed; and if extra work or work not provided for in this contract, is performed by the Contracter before prices have been fixed for such work, then the Engineer shall estimate the same at such prices as he shall deem just and reasonable, and his decision shall be final, and the said Contractor shall accept such prices in full satisfaction of all demands against the Sanitary District for said extra work; provided, that, if the extra work done under this contract is of such a nature, being distinct from other work being done by said Contractor, that the actual cost of the same can be determined, then the said contractor shall receive, and the Sanitary District shall pay, in full satisfaction for the same, the actual cost of the work with fifteen (15) per cent added. Provided, further, that nothing shall be deemed extra work which can be measured or estimated under the provisions of this contract.

Responsibility of Contractor.

55. It is further agreed that in all cases of question or dispute arising or growing out of this contract in any way regarding the cost or value of extras, variations, allowances, deductions, or the amount of damages in any manner growing out of the violation of this contract, the decision of the Engineer shall be final and binding on both parties hereto. All work provided for in this contract is to be done under the direction and supervision of the Chief Engineer and his properly authorized agents. The Contractor is to be guided by the lines, stakes, marks and grades given by them, and is to carefully preserve the same as far as possible during the progress of the work, and is to furnish all needed facilities, without charge therefor, to enable the Engineer to properly give lines and grades and to measure the work from time to time. All work will be subject to inspection by the said Engineer and his said agents, and if not in accordance with the requirements of this contract, is to be made good by the Contractor. The Contractor will be responsible for the entire work until completed and accepted by the Sanitary District. The Contractor will be required to give his personal attention to the fulfillment of this contract and to the execution of the work. He is to keep the same under his control, and will not be allowed to sublet all or any part of it; it being distinctly understood and agreed that the subletting of the work covered by this contract, or any part thereof, shall, after thirty (30) days' notice, work a forfeiture of the contract, at the option of the Sanitary District.

The Contractor shall conform to all the ordinances of the City of Chicago and the regulations imposed by the United States Government in any manner affecting this work, and he will release the Sanitary District of Chicago from all responsibility for loss or damage occasioned by delays or inconveniences due to the navigation of the river by

vessels of any sort or description or for other causes not now foreseen.

The contractor will not be allowed to assign, by power of attorney or otherwise, any portion of the moneys that may become due through the workings of this contract. In case the Contractor fails to comply with the provisions of this contract as to progress and character of work, he shall be duly notified in writing, and thirty (30) days after the giving of said notice, the party of the first part may declare this contract forfeited, if there is a substantial failure to comply with its provisions.

Tools.

56. The contractor is to furnish all the tools of every description, including, pumps, cars and tracks, boats, barges and tugs necessary to the full and complete carrying out of this contract, and on completion of the work, is to remove all tools, buildings and material of all kinds from the site of the bridge.

Precautions.

57. Whatever precautions may be necessary to render any portion of the work more secure in any respect, or to decrease the liability of accident from any cause, or to avoid contingencies which are liable to delay the completion of the work, shall be taken by the Contractor.

Workmen.

58. The Contractor shall employ competent foremen and laborers, and shall discharge, at the request of the Engineer, any incompetent or unfaithful men in his employ. None but men expert in their respective branches of work will be employed where special skill is required, and in the employment of men preference shall be given to union laborers. It is especially understood and agreed that eight (8) hours shall constitute a day's work, and that no workman shall be employed or required to work more than eight (8) hours out of any twenty-four (24) hours, and no work in excess of that time shall be allowed. In the event of any violation of the above eight (8) hour provision, it is agreed hereby that the said District shall, and that it is duly authorized to retain from any money due, or to become due, at any time from it to the second party, as liquidated damages, the sum of five (5) dollars per hour for each hour that any employe shall be required to work in excess of eight (8) hours per day, pursuant to the terms and conditions of the ordinance adopted June 23, 1897, attathed hereto.

Patents.

59. It is further agreed that the second party shall indemnify, keep and save harmless said first party from all liabilities, judgments, costs, damages and expenses which may in any wise come against said first party, or which may result on account of any infringement of any patent by means of the use of any materials, machinery, device or apparatus used in the performance of this contract, or of designs furnished by second party and accepted by the Sanitary District, except the patents owned by the Scherzer Rolling Lift Bridge Company, and in the event of any claim or suit or action at law or equity of any kind whatsoever being made or brought against said first party, then first party shall have the right to retain a sufficient amount of money in the same manner and upon the same conditions as hereinafter in the next following clause of this contract provided.

Damages.

60. If any damage shall be done by the Contractor or by any person or persons in his employ to the owner or occupants of land, or to any property adjoining or in the vicinity of the work herein contracted to be done, or to a neighboring contractor, the Engineer shall have the right to estimate the amount of said damage, and to cause the Sanitary District to pay the same to the said owner or occupant, and the amount so paid for said damages shall be deducted from the money due said Contractor, under said contract. Said Contractor covenants and agrees to pay all damages for any personal injury sustained by any person growing out of any act or doing of himself, or his employes, that is in the nature of a legal liability, and he hereby agrees to indemnify and to save the Sanitary District harmless against all suits or actions of every name and description brought against the said Sanitary District for, or on account of, any such injuries, or such damages received or sustained by any person or persons. by or from said Contractor, his servants, agents or employes, in the execution of said work; or by or in consequence of any negligence in guarding the same; or by or on account of any omission or act of said Contractor, his agents or employes; and the said Contractor further agrees that so much of the money due to him under and by virtue of this contract, as shall be considered necessary by the Board of Trustees of the Sanitary District, may be retained by the said Sani-

tary District until such suit or claim for damages, as aforesaid, shall have been settled, and evidence to that effect furnished to the satisfaction of the said Board of Trustees.

Time.

61. The Contractor agrees to begin the work covered by this contract within fifteen (15) days after said contract shall have been executed, and to prosecute the building of the structure herein provided for so as to complete the same on or before October 1, 1899.

Prices.

62. In consideration of the said work being carried on and completed in the time and manner as hereinbefore specified, the said party of the first part agrees to pay to the said party of the second part the following amounts, and the said party of the second part agrees to receive and accept the same as full compensation for the performance of the work, including the furnishing of the materials, tools, labor, etc., to-wit;

(*a*) For each cubic yard of excavation, price to include all necessary refilling, fifty-five hundredths dollars ($.55).

(*b*) For sheet piling, bracing and dock to be replaced, per one thousand (1,000) feet B. M., (price named to cover all spikes, bolts or other iron to be used in constructing same), as per terms of this contract, the sum of forty dollars ($40).

(*c*) For timber in foundations and pier protections, per one thousand (1,000) feet, B. M., (price named to cover all spikes, bolts or other iron to be used in constructing same), as per terms of this contract, the sum of fifty dollars ($50).

(*d*) For piles delivered at the site of the work, as specified, per lineal foot, the sum of twenty hundredths dollars ($.20).

(*e*) For piles driven in foundations, as specified, per lineal foot, the sum of thirty-three hundredths dollars ($.33).

(*f*) For piles driven in protection, as specified, per lineal foot, the sum of thirty hundredths dollars ($.30).

(*g*) For each cubic yard of natural cement concrete, as specified, the sum of four and forty hundredths dollars ($4.40).

(*h*) For each cubic yard of Portland cement concrete, as specified, the sum of six and sixty hundredths dollars ($6.60.)

(*i*) For each cubic yard of completed masonry, per the terms of this contract, the sum of fifteen and forty hundredths dollars ($15.40.)

(*k*) For the superstructure complete, including operating machinery, locks, electrical equipment, houses, etc., for operating this bridge, as specified, and all iron and steel in the substructure, as specified, the sum of fifty-two thousand dollars ($52,000).

(*l*) For extra medium or soft steel erected in place, the sum of six cents (6c) per pound.

(*m*) For extra iron castings erected in place, the sum of ten cents (10c) per pound.

(*n*) For extra cast steel in track plates, erected in place, the sum of ten cents (10c) per pound.

(*o*) For extra steel castings and all other steel for machinery, erected in place, the sum of ten cents (10c) per pound.

(*p*) For extra phosphor bronze, erected in place, the sum of fifty cents (50c) per pound.

(*q*) For extra counter-weight block castings, erected in place, the sum of two cents (2c) per pound.

(*r*) For the removal of the present abutments, protections, piers, docks and viaducts, as specified, the sum of twenty-two hundred dollars ($2,200).

The prices proposed must include all royalties for patents or patented material and appliances used in the construction of the work described in the specifications and agreements; and before final payment is made the Contractor shall furnish a satisfactory guarantee against all claims; provided, however, this does not apply to the patented design of the bridge of the Scherzer Rolling Lift Bridge Company, the right to use the same having been purchased by the Sanitary District.

Time and Manner of Payment.

63. It is agreed by the party of the first part that on or before the 10th and 25th days of each month during the progress of the work and subject to the provisions hereinbefore specified under the head of "Time," payment will be made to the said party of the second part to the amount of eighty-seven and one-half (87½) per cent of the contract price of the sub-structure of the approximate amount of work done during the previous half month, upon written certificate from the Engineer that such approximate amount of work has been done during that period; twelve and one-half (12½) per cent being re-

served until the completion and acceptance of the whole work. It is agreed by the party of the first part that when the entire iron work shall have been delivered at the site of erection, payment shall be made by the party of the second part to the amount of sixty (60) per cent of the contract price of the superstructure, upon written certificate from the Engineer that such approximate amount of work has been done. The remaining forty (40) per cent to be paid within thirty (30) days after the completion of the work and its acceptance by the party of the first part.

Certificate.

64. Upon the completion of the substructure in accordance with the specifications and contract, to the full satisfaction of the Chief Engineer, and upon the inspection of same and the issuance of the final certificate by the Chief Engineer, the said party of the first part agrees to pay to the said party of the second part the amounts shown to be due to said second party by the said certificate of said Chief Engineer, including the twelve and one-half (12½) per cent reserved. Upon the completion of the superstructure in accordance with the specifications and contract, to the full satisfact on of the Chief Engineer, and upon the inspection of same and the issuance of the final certificate by the Chief Engineer, the said party of the first part agrees to pay to the said party of the second part the amount shown to be due to the said party of the second part by the said certificate of the said Chief Engineer.

Failure to Complete.

65. It is further agreed by the said party of the second part that, if the work to be done under this contract on the substructure shall be abandoned, or if it shall be assigned by him, or if he loses control of the work from any cause, excepting acts of God and the public enemy, or if the rate of progress is not such as to insure its completion within the time specified, or if at any time the Engineer shall be of the opinion, and shall so certify in writing to the said party of the first part, that said work, or any part thereof, is unnecessarily and unreasonably delayed, or that the Contractor is willfully and persistently violating any of the conditions or covenants of this contract, or is not fulfilling said contract in good faith, the said party of the first part shall have the power to notify the said Contractor to discontinue all work, or any part thereof, as may be designated by the said party of the first part, and the said party of the first part shall thereupon have the power either to complete said work by contract or to employ such men and teams and obtain such machinery, implements and tools, and to purchase such material as the said Engineer may deem necessary to complete the work herein described, or any part thereof. And, in so doing, said Engineer may use such tools, implements and materials as may be found upon the line of said work. The cost of doing such work by the said Engineer shall be charged to the said Contractor, and the expense so charged shall be deducted and paid by the said party of the first part out of such moneys as may be due, or may at any time thereafter become due to said Contractor, under and by virtue of this contract, or any part thereof, so far as the same shall suffice therefor; and the balance, if any, shall be paid by said Contractor on demand. Should there be a failure by the second party to deliver said iron work of the character and strength herein provided for at the time herein specified, or if, after delivery of same as herein provided, said Contractor should fail financially, either before or after having been paid the sixty (60) per cent of the contract price as hereinbefore provided, and be unable to carry out said contract and complete said work, then, in that case, the said party of the first part shall have the power to complete said work by contract or otherwise, at its discretion. and charge up the cost of so completing the said work to said Contractor. Should the amount remaining unpaid of the contract price not suffice therefor, then said Contractor and his bondsmen shall be held liable for the deficiency. If at any time during the progress of said work, the said Contractor shall fail or neglect to pay for labor performed or material furnished upon said work for ten (10) days after it shall have become due, then the party of the first part shall have power to pay for such labor or for materials, tools, explosives, machinery, appliances, fuel, provisions or supplies of any sort or kind used or consumed in, upon or on account of the work covered by this contract; the party of the first part shall have the power to pay for such labor or materials, explosives, machinery, appliances, fuel, provisions or supplies of whatsoever sort or kind, out of moneys that may be due to said Contractor, and said amount so paid shall be retained out of any money due or to becomdue to said Contractor. In any such case the

party of the first part is hereby authorized and empowered by the party of the second part to ascertain by its Engineer the amounts due or owing from said Contractor to any laborer or laborers, or to any person or persons, for materials, tools, explosives, machinery, appliances, fuel, provisions or supplies of any sort or kind consumed upon, in or on account of the work covered by this contract in such manner and upon such proofs as the said Engineer may deem sufficient.

Contractor's Bond.

66. The Contractor shall furnish a bond in the sum of fifteen thousand ($15,000) dollars for the substructure and superstructure of this bridge, with good and sufficient sureties, the same to be satisfactory to the Board of Trustees of the Sanitary District, conditioned upon the faithful performance of all the terms and conditions of this contract; and should the sureties on said bond at any time fail financially, or be, in the opinion of the said Board of Trustees, insufficient security for the penalty of said bond, then, in that case, they may, on giving ten (10) days notice thereof in writing, require said Contractor to furnish a new and additional bond in the place of the bond so having become insufficient or worthless.

Final Payment.

67. The said party of the second part further agrees that he shall not be entitled to demand or receive final payment for any portion of the aforesaid work or materials except in the manner set forth in this agreement, nor until all of the stipulations hereinbefore mentioned are complied with, and the said Chief Engineer shall have given his certificate to that effect; whereupon the said party of the first part will, at the expiration of thirty (30) days after such completion and delivery of such certificate, pay, and it hereby binds itself to pay, the said party of the second part, in cash, the whole amount of money accruing to said party under this contract, excepting such sum or sums of money as may be lawfully retained under any of the provisions of this contract hereinbefore set forth. Provided, that nothing herein contained shall be construed to affect the right hereby reserved of the said party of the first part to reject the whole, or any portion, of the aforesaid work should the said certificate be found to be inconsistent with the terms of this agreement or otherwise improperly given.

IN WITNESS WHEREOF, on the day and year first above written, the said Sanitary District of Chicago has caused this agreement to be signed by its President and attested by its Clerk, and its corporate seal to be hereto affixed, and the said party of the second part has hereunto set our hands .....and seals.....

The Sanitary District of Chicago.

By

.....

President.

Attest :

.....

[SEAL] *Clerk.*

(Signed)

Chicago Bridge & Iron Co.

[SEAL] HORACE E. HORTON,

President.

[SEAL] HENRY W. WILDER,

Secretary.

All interlineations and erasures were made before signatures.

Chicago Bridge & Iron Co.

H. E. H.,

Pt."

REPORT IN REFERENCE TO COMPLETION OF CONTRACTS FOR SUBSTRUCTURES FOR THE LOCKPORT HIGHWAY BRIDGE AND WIRE MILLS ROAD BRIDGE CROSSING RIVER DIVERSION ON SECTION 16.

Mr. Smyth, Chairman, presented, and the Clerk read, a report from the Committee on Engineering in reference to and accompanied by the final certificates of the Chief Engineer as to the completion of the contract with Messrs. Griffiths & McDermott for the substructure of the Lockport Highway Bridge crossing River Diversion on Section 16, and with Messrs. Hayes Bros. for the substructure of the Wire Mills Road Bridge crossing River Diversion on Section 16, the report recommending that the President and Clerk of the District be authorized to make final payment to said Griffiths & McDermott in the sum of $743.24 and to the said Hayes Bros. in the sum of $773.91, under conditions and stipulations as set forth in the report.

Mr. Smyth, seconded by Mr. Mallette, moved that the report be adopted and the recommendations contained therein concurred in.

On roll call the vote stood: Yeas—Messrs. Boldenweck, Carter, Eckart, Jones, Kelly, Mallette, Smyth and Wenter—eight. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, May 10, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—The Committee on Engineering, to which was referred, at the meeting of the Board of Trustees held on the 3rd inst. (page 5669 of the Proceedings), the final certificates of the Chief Engineer in reference to the completion of the contract for the substructure of the Lockport Highway Bridge, crossing River Diversion Channel on Section 16, by Messrs. Griffiths & McDermott, and for the substructure of the Wire Mills Road Bridge, crossing the same channel on the said Section, by Messrs. Hayes Brothers, reports that the committee has examined each of said certificates and considered the subject matter of the completion of the work done under said contracts, and recommends as follows:

That the President and Clerk of the District be authorized and directed to make final payment to said Messrs. Griffiths & McDermott in the sum of seven hundred and forty-three dollars and twenty-four cents ($743.24) and to the said Messrs. Hayes Brothers in the sum of seven hundred and seventy-three dollars and ninety-one cents ($773.91), the sums found to be due the said contractors, respectively, under the aforesaid final certificates hereto attached, upon the execution of a receipt by each of said firms in favor of the District, to be made in full, and releasing the District from any and all claims and demands of whatsoever kind or nature upon the contracts aforesaid.

Respectfully submitted,

(Signed) THOMAS A. SMYTH,
Chairman.

J. P. MALLETTE,

Z. R. CARTER,

B. A. ECKHART,

ALEX. J. JONES,

FRANK WENTER,

THOMAS KELLY,

Committee on Engineering."

(Two enclosures.)

The following are

THE FINAL CERTIFICATES OF CHIEF ENGINEER:

"CHICAGO, April 24, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I hereby certify that Griffiths & McDermott have completed all of the work covered by their contract dated October 28th, 1898, for excavating foundations and concrete work for the Lockport Road Bridge on Section 16. The work is done to the full satisfaction of the Chief Engineer and in accordance with the terms of said contract with this District.

This certificate is given subject to any unaccrued or unmatured obligations imposed by the contract.

The statement of this contract is as follows:

Excavation, 526 cu. yds. at $1.00	$ 526 00
Portland cement concrete, 449.45 cu. yds. at $6.95	3,123 68
Total amount earned	$3,649 68
Total amount paid	2,906 44
Amount due and unpaid	$ 743 24

Respectfully submitted,

(Signed) ISHAM RANDOLPH,
Chief Engineer."

"CHICAGO, April 24, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I hereby certify that Hayes Bros. have completed all of the work covered by their contract dated October 31st, 1898, for excavating foundations, concrete work, excavation of old masonry and raising one span of bridge for the Wire Mills Road Bridge on Contract Section 16. The work is done to the full satisfaction of the Chief Engineer, and in accordance with the terms of said contract with this District.

The statement of this contract is as follows:

Excavation, 508 cu. yds. at 50c	$ 254 00
Portland cement concrete, 566.57 cu. yds. at $7.50	4,249 28
Excavation, old masonry, 95 cu. yds. at 40c	38 00

Raising one span of bridge.....	150 00
Total amount earned.....	$4,691 28
Total amount paid.....	3,917 37
Amount due and unpaid.....	$ 773 91

Respectfully submitted,

(Signed) ISHAM RANDOLPH,

Chief Engineer."

REPORT IN REFERENCE TO ENGINEER OF BRIDGES AND BRIDGE CONSTRUCTION.

On behalf of the Committee on Rules, Mr. Jones presented, and the Clerk read, a report from that Committee, setting forth that Mr. W. M. Hughes has assumed his duties in accordance with the action of the Board at the meeting held May 3, 1899 (page 5672 of the Proceedings), and recommending that his title shall be Engineer of Bridges and Bridge Construction, and that all reports emanating from said Department be signed by him in this capacity.

Mr. Jones, seconded by Mr. Smyth, moved that the report be adopted and the recommendations contained therein concurred in.

The motion prevailed unanimously and it was so ordered.

The following is

THE REPORT:

"CHICAGO, May 10, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—The Committee on Rules beg leave to report that in accordance with the action of your Honorable Body of May 3, 1899 (page 5672 of the proceedings), Mr. W. M. Hughes has assumed the duties therein designated to be performed by him, and, to the end that the regularity of proceedings in that department be observed, your committee recommend that the title of Engineer of Bridges and Bridge Construction be conferred upon the said W. M. Hughes and that all reports emanating from said department be signed by the said Hughes in this official capacity.

Respectfully submitted,

(Signed) WM. BOLDENWECK,

Chairman.

THOMAS A. SMYTH,

ALEX. J. JONES,

J. P. MALLETTE,

THOMAS KELLY,

Committee on Rules."

SUSPENSION OF RULE 3 OF RULES AND REGULATIONS.

Mr. Jones stated that he wished to make a verbal report for the Committee on Rules, and seconded by Mr. Eckhart, he then moved that Rule 3 of the Rules and Regulations be suspended, and that the Clerk be directed to call regular meetings of the Board for every Wednesday until the further order of the Board.

The motion prevailed unanimously and it was so ordered.

PRESENTATION OF BIDS FOR SUPPLYING AND ERECTING SUB AND SUPERSTUCTURE OF BELT RAILWAY BRIDGE CROSSING MAIN CHANNEL NEAR EAST END OF SECTION K.

The President then announced that in conformity with the advertisement inviting proposals for supplying and erecting sub and superstructures of Belt Railway bridge crossing Main Channel near east end of Section K, duly published, giving 60 days notice as required by the Sanitary District Act, the Board would now proceed to open bids received in response to said advertisement.

The Clerk then proceeded to open the bids as shown hereafter.

At the conclusion of the reading of the bids Mr. Wenter, seconded by Mr. Carter, moved that the bids just received be compiled, summarized and tabulated by the Chief Engineer and referred to the Committee on Engineering.

The motion prevailed unanimously and it was so ordered.

The following is

THE SCHEDULE OF BIDS FOR SUPPLYING AND ERECTING SUB AND SUPERSTRUCTURE OF BELT RAILWAY BRIDGE CROSSING MAIN CHANNEL NEAR EAST END OF SECTION K.

Opened May 10, 1899.

No. of Bid as Received.	NAME AND ADDRESS OF BIDDER.	Amount Deposited With Bid.
1	C. L. Strobel, Chicago, Ill.	$ 3,000 00
2	The King Bridge Co., Cleveland, O.	3,000 00
3	Chicago Bridge & Iron Co., Chicago, Ill.	3,000 00
4	Massillon Bridge Co., Massillon, O.	3,000 00
5	Pennsylvania Steel Co., Steelton, Pa.	3,000 00
6	The Toledo Bridge Co., Toledo, O.	3,000 00
7	The J. G. Wagner Co., Milwaukee, Wis.	3,000 00

The following are

THE BIDS IN DETAIL FOR SUB AND SUPERSTRUCTURE OF BELT RAILWAY BRIDGE CROSSING MAIN CHANNEL NEAR EAST END OF SECTION K.

In Order of Magnitude—Lowest Bid First—Opened May 10, 1899.

No. of Bid as Received.	No. of Bid in Order of Magnitude.	NAME AND ADDRESS OF BIDDER.	—a— Excavation. 8,100 C. Y.		—b— Piles Delivered. 7,070 lin. ft.		—c— Piles in Foundation, 7,070 lin. ft.		—d— Portland Cement Concrete, 2,180 C. Y.		—e— Masonry, 1,615 C. Y.		—f— Superstructure Complete.	—g— Extra Medium or Soft Steel. Price per lb.	—h— Extra Steel Castings. Price per lb.	—i— Extra Lumber, Price per 1000 ft. B. M.	Total.
			Price per C. Y.	Total.	Price per L. ft.	Total.	Price per L. ft.	Total.	Price per C. Y.	Total.	Price per C. Y.	Total.					
6	1	The Toledo Bridge Co., Toledo, O.....	$ 0 45	$ 3,645 00	$ 0 16	$ 1,131 20	$ 0 19	$ 1,343 30	$ 5 60	$12,208 00	$11 00	$17,765 00	$131,200	$ 0 5½	$ 0 06	$ 30 00	$ 167,292 50
7	2	The J. G. Wagner Co., Milwaukee, Wis....	47	3,807 00	18	1,272 60	21	1,484 70	5 85	12,753 00	11 55	18,653 25	138,300	4½	5½	28 00	176,270 55
4	3	Massillon Bridge Co., Massillon, O.....	60	4,860 00	18	1,272 60	20	1,414 00	6 50	14,170 00	12 25	19,783 75	138,900	5	10	35 00	180,400 35
1	4	C. L. Strobel, Chicago, Ill.....	57	4,617 00	19	1,343 30	16	1,131 20	6 20	13,516 00	11 40	18,411 00	142,200	4 9-10	7 4-10	33 00	181,218 50
5	5	Pennsylvania Steel Co., Steelton, Pa....	45	3,645 00	16	1,131 20	19	1,343 30	5 60	12,208 00	11 00	17,765 00	145,900	4 9-10	11	35 00	181,992 50
2	6	The King Bridge Co., Cleveland, O.....	55	4,455 00	20	1,414 00	15	1,060 50	6 50	14,170 00	11 50	19,572 50	150,600	5½	8	35 00	190,272 00
3	7	Chicago Bridge and Iron Co., Chicago, Ill.	69	5,589 00	22	1,555 40	19	1,343 30	7 50	16,350 00	15 00	24,225 00	150,000	6	10	50 00	199,062 70

ADJOURNMENT.

On motion of Mr. Smyth, seconded by Mr. Braden, the Board then adjourned.

Joseph F. Haas

Clerk.

PROCEEDINGS

—OF THE

BOARD OF TRUSTEES

—OF THE—

SANITARY DISTRICT OF CHICAGO.

MAY 17, 1899.

OFFICIAL RECORD.

Published by authority of the Board of Trustees of the Sanitary District of Chicago.

REGULAR MEETING.

The four hundred and thirty-eighth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Wednesday, May 17, 1899, at 2 o'clock P. M.

On roll-call Messrs. Braden, Carter, Eckhart, Jones, Mallette, Smyth and Wenter—seven members, were present.

In the absence of the President, the Clerk then called the Board to order.

ELECTION OF TEMPORARY CHAIRMAN.

Mr. Carter, seconded bv Mr. Smyth, moved that Mr. James P. Mallette be elected temporary Chairman.

The motion prevailed unanimously, and Mr. Mallette was declared duly elected temporary Chairman, and thereupon took the chair.

MINUTES.

The minutes of the regular meeting held May 10, 1899, were approved as printed, on motion of Mr. Smyth, seconded by Mr. Carter.

MESSAGE IN REFERENCE TO PERMIT FOR COFFER-DAM BETWEEN ADAMS AND VAN BUREN STREETS.

The Chairman presented, and the Clerk read, a message from President Boldenweck, transmitting for filing a permit from the Acting Secretary of War for the construction of a temporary coffer-dam, between Adams and Van Buren streets, for the completion of the By-pass.

Mr. Wenter, seconded by Mr. Smyth, moved that the message be printed, and with accompanying permit, placed on file.

The motion prevailed unanimously, and it was so ordered.

The following is

THE REPORT:

"CHICAGO, May 17th, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I have the honor to report that a permit has been granted by the acting Secretary of War to construct a temporary coffer-dam between Adams and Van Buren streets for the purpose of completion of By-pass. I herewith transmit same for filing.

Respectfully submitted,

(Signed) WILLIAM BOLDENWECK.
President."

(Accompanied by permit.)

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* VOUCHERS.

The Clerk presented the following vouchers:

ENGINEERING DEPARTMENT.

W. T. Keating (traveling and expense)	$ 40 18	
W. M. Hughes (services Consulting Engineer)	75 00	
W. M. Hughes (Belt Railway Bridge plans—final)	241 50	
Geo. F. Blake Manufacturing Company (judgment)	1,253 55	
		$ 1,610 23

GENERAL ACCOUNT.

Geo. E. Haseltine (livery)	$ 30 00	
Edwin O. Jordan (streams examination)	435 45	
Arthur W. Palmer (streams examination)	438 98	
Fred Harvey (sundries)	200 00	
		$ 1,104 43

MAINTENANCE ACCOUNT.

S. L. Derby Lumber Company (guard rails to bridges)		$ 10 58

CONSTRUCTION ACCOUNT.

Gahan & Byrne (Section H, May 16, 1899)	$ 2,320 00	
Gahan & Byrne (Section H, installing pumps)	683 05	
Hayes Bros. et al. (Section N, May 16, 1899)	2,563 55	
Hayes Bros. et al. (Section N—C., M. & N. Bridge)	166 01	
Hayes Bros. et al. (Section N, Kedzie Avenue Bridge)	84 65	
Heldmaier & Neu (Section 12, Romeo Bridge)	295 69	
The Scherzer Rolling Lift Bridge Co. (eight-track railroad bridge)	612 50	
The Kelly-Atkinson Construction Company (Kedzie Avenue Bridge)	315 60	
Western Union Telegraph Company (moving lines)	334 66	
Continental Bolt and Iron Works (Pan Handle Bridge)	29 45	
The Marsh & Bingham Company (Pan Handle Bridge)	68 12	
Chicago Crushed Stone Company (Kedzie Avenue Bridge)	79 65	
Lydon & Drews Company (Chicago River improvement)	10,000 00	
		$ 17,552 93
Grand total		$ 20,278 17

* To be paid by warrants, with interest coupons attached, drawn against the Tax Levy for 1899.

Mr. Carter, seconded by Mr. Wenter moved that the vouchers as read and shown above be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Braden, Carter, Eckhart, Jones, Mallette, Smyth and Wenter—seven. Nays—none.

Upon this result, the Chairman declared the motion carried.

WEEKLY REPORT ON EMPLOYES.

The Clerk presented a report in accordance with the rules, showing the number of persons in the employ of the District for the week ending May 13, 1899,

which was read and by unanimous consent was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, May 17, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I beg leave to report herewith the number of persons in the employ of the District for the week ending May 13, 1899, as the same have been reported to me:

Engineering department	79
Maintenance account	8
Clerical department	5
Law department	8
Treasury department	1
Police department	28
General	3
Total employes	132

Respectfully submitted,

(Signed) JOSEPH F. HAAS,
Clerk."

MONTHLY REPORT FROM LAW DEPARTMENT.

The Clerk presented a report from the Law Department for the month of April, 1899, which, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT.

"CHICAGO, May 15, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I herewith submit the report of the Law Department for the month of April, 1899:

The following are the expenses and disbursements:

Court costs	$ 137 90	
Expense account	357 45	
Legal service	1,050 00	
Books and stationery	22 00	
		$ 1,567 35

LAND ACCOUNT.

Pennsylvania Co., semi-annual rent for By-passes	$ 1,500 00	
Will County right of way	4,004 54	
Taxes, Will County	3,168 40	
		$ 8,672 94
Total for April		$10,240 29

The amount expended for Will County right of way includes the lands required for the Romeo Highway Bridge, and also includes the sum of twenty-five hundred dollars ($2,500.00), paid Chester A. Allen, in full settlement of all differences caused by the ejectment proceedings growing out of the appropriation by the District of lands, recently decided by the Supreme Court in favor of Allen.

An ordinance has been prepared by this department, to be passed by the City of Chicago, granting permission to the Sanitary District of Chicago to remove the bridge and abutments at Taylor street and to construct at this site a new bridge across the Chicago River.

Certain deeds of land, adjacent to the Chicago River, to which the Sanitary District of Chicago is grantor and the United States of America grantee, have been examined and approved by this Department.

The following suits have been disposed of during the month:

In the case of the Sanitary District of Chicago, appellant, vs. The George F. Blake Manufacturing Company, appellee, in the Supreme Court of Illinois, the opinion of the Appellate Court, reversing the judgment of the Lower Court, has been affirmed.

In the case of Mason, Hoge, King & Co., appellants, vs. James Reddick, Clerk, and the Sanitary District of Chicago, appellees, in the appellate Court of Illinois, the judgment of the Lower Court has been affirmed.

The case of the Sanitary District of Chicago, appellant, vs. William J. Adam, Janett C. Royer et al., appellees, in the Supreme Court of Illinois, has been affirmed.

The following cases have been begun during the month:

The Sanitary District of Chicago vs. Chester A. Allen et al., in the Circuit Court of Will County. This was a petition for the condemnation of certain property which the Supreme Court of this State recently decided belonged to Allen.

The Sanitary District of Chicago vs. Chester A. Allen et al., in the Circuit Court of Will County. This was a bill for an injunction to restrain the defendant from taking possession of the property in question until the above condemnation suit could be disposed of.

Horatio P. Mason, Charles E. Hoge, John King, Harry B. Hanger, vs. the Sanitary District of Chicago, General No. 194,751, Circuit Court of Cook County. This is a suit for $10,000.00 for damages and interest on withheld payments.

The attention of the Department, in addition to the above cases and items, has been given to the routine work and matters of minor importance.

Respectfully submitted,

(Signed.) CHARLES C. GILBERT,
Attorney."

ANNUAL REPORT FROM ENGINEERING DEPARTMENT FOR 1898.

The Clerk presented a report from the Chief Engineer with reference to, and accompanied by, the annual report from the Engineering Department for the year ending December 31, 1898, which, with accompanying annual report, was ordered printed and placed on file.

The following are

THE REPORTS:

"CHICAGO, May 17, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—In transmitting my annual report, which comes before you today, I wish to apologize for its late appearance; but the exactions upon my time have been so pressing and the number of subjects necessarily considered so numerous that I could not present it sooner. I must express my appreciation of the immense help which I have received in preparing this report from Mr. William Trinkaus, Record Clerk, in compiling all of the data entering into the report.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,
Chief Engineer."

March 1, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Taking up the record of the Engineering Department of this District for the year 1898, I submit in the following report, the facts necessary to a clear understanding of the condition of the work at the close of the year giving, as has been done in my previous reports, the essential facts in a concise form and citing such references as would enable any one whose duty or interest might prompt such investigation to verify the several statements made.

My report for the year 1897 appears in the volume of your Proceedings for the year 1898 (pages 4592-4651), under date of March 9th. Where that report ends, the one now submitted takes up the history of this Department and brings it to December 31, 1898.

The value of the work performed within the year 1898 aggregates $1,210,536.09. The amount vouchered for payment (including payment of reservations on completed work) was $1,286,021.15.

The approximate value of all contracts to January 1, 1899, is $22,002,081.09. The total amount earned to same date is $20,457,825.09. Percentage of work under contract completed, about 93.

The volume of excavation accomplished during the year was 1,493,048.1 cubic yards of glacial drift and 371,865 cubic yards of solid rock, a total of 1,864,913.1 cubic yards. The volume of excavation accomplished from the beginning of the work to January 1, 1899, was 28,657,677.6 cubic yards of glacial drift and 12,631,518.1 cubic yards of solid rock, a total of 41,289,195.7 cubic yards, or 96.3 per cent of the total estimate.

In the last Annual Report, 100 per cent of the estimate for retaining wall was reported as completed, but since then an estimate of 6,300 cubic yards of this class of work is contained in the contract on Section 18, and is not yet built. This item reduced the percentage completed to 98.3.

The volume of masonry and concrete work other than retaining wall done during the year amounted to 24,162.13 cubic yards. The volume done from the beginning of the work was 35,193.34 cubic yards, or 56.1 per cent of the total estimate.

The amount of piles driven for bridge foundations during the year was 47,407.5 lineal feet. The amount driven from the beginning of that class of work was 61,420.5 lineal feet, or 64.6 per cent of the total estimate.

The condition of the work of the Engineering Department will appear in the statement of the sections upon which the work was performed and in the tabulations which form a part of this report, designated as Exhibits.

These Exhibits are transmitted to me by Mr. William Trinkaus, Record Clerk, and are as follows:

A No. 1. A classified statement, by months, of the Engineering expenses for the year 1898.

A No. 2. A classified statement, by months, of the construction expenses for the year 1898.

A No. 3. A classified statement of all Engineering Department disbursements from date of organization to January 1, 1899.

B No. 1. A revised approximate estimate of Main Channel, River Diversion and General Contracts, showing the itemized quantities and values involved therein.

B No. 2. A revised approximate estimate of Bridge Contracts, showing the itemized quantities and values involved therein.

B No. 3. A summary of all Contract quantities.

B No. 4. A summary of all Contract values.

B No. 5. Shows the condition of work on all Contracts in terms of quantities.

B No. 6. Shows the condition of work on all contracts in terms of values.

B No. 7. Covers work contemplated but not yet under Contract, and the balance required to complete the work of the Engineering Department.

Exhibit "C" is a comparative estimate of quantities in completed sections of Main Channel prism.

Chicago River.

The negotiations which were pending during 1897 with the Pennsylvania Company for a By-pass through its property were concluded in 1898 and a form of agreement with said company was presented to the Board of Trustees by the Joint Committee on Finance and Engineering on February 9th (pages 4549-50), which provides for a by-pass fifty (50) feet wide between walls and a depth of sixteen (16) feet below Chicago datum, for which privilege the Sanitary District proposes to pay an annual rental of $3,000.00. This agreement was executed on February 9th and appears in the Proceedings for February 24th (pages 4573-4).

The negotiations which were pending during 1897 with the Chicago and Alton Railroad Company for a By-pass through its property were concluded in 1898 and an executed agreement with said company was presented to the Board of Trustees by the Joint Committee on Finance and Engineering on June 16th (pages 4892-4) and adopted by the Board on that day. The agreement provides for a By-pass covering an area of 544 square feet nearly and a depth of sixteen feet below Chicago datum, for which privilege the Sanitary District agrees to pay an annual rental of $58.34.

The negotiations for a By-pass at and near Taylor Street that were pending between the Sanitary District and the Chicago and Northern Pacific Railroad Company and the Chicago, Rock Island and Pacific Railway Company were abandoned and the project of two bridges of the bascule type was substituted for that of the By-pass. On November 23d (pages 5274-6) the Board adopted the plan of constructing two new bridges without center piers, one in lieu of the present railway bridge of the Chicago Terminal Transfer Railroad Company and the other in lieu of the city bridge at Taylor Street, upon the design of the Scherzer Rolling Lift Bridge Company.

For further information on these Bridges, see the division of this report relating to bridges.

The work of improving the Chicago River has been carried on during the entire year by the Lydon & Drews Company, which has accomplished 472,230 cubic yards of excavation, and 230 lineal feet of dock removal.

On March 2nd (page 4583), an order was passed by the Board for the advertisement of proposals for the construction of the sub and superstructure of a By-pass, extending from a point near the north line of Adams Street to a point fifty (50) feet south of Van Buren Street, the bids for which were to be opened June 1, 1898. May 18th (pages 4812-13) the Board extended the time for opening said bids to June 8, 1898. On that day (pages 4864-8) the bids were opened and referred to the Committee on Engineering. On June 16th (pages 4896-8) the work of the substructure, together with auxiliary work and material for the By-pass was awarded the Lydon & Drews Company, and the superstructure to Griffiths & McDermott. The contract of Lydon & Drews Company was executed on June 30th, and appears in the Proceedings for July 13th (pages 4944-50); that of Griffiths & McDermott was executed on June 30th and appears in the Proceedings for July 13th (pages 4950-9).

The work in connection with the change of the Van Buren Street approach span across the By-pass along the Chicago River is treated under the head of Bridges.

The condition of work on Chicago River, exclusive of bridges, is as follows:

Chicago River Improvement—		
Excavation by dredge, 600,000 cu. yds. at $0.19	$114,000 00	
Dock erection, 298 lin. ft. at $14.75	4,246 50	
Dock erection, extra material	108 04	
Dock removal, 300 lin. ft. at $1.75	525 00	
Total Chicago River Improvement		$ 118,874 54
Total estimated cost of substructure for By-pass		104,090 47
Total estimated cost of superstructure for By-pass		88,692 00
Total		$ 311,657 01
Amount earned to January 1, 1899		143,922 40
Unfinished work		$ 167,734 61
Reserved percentages		17,272 21
Unpaid vouchers		13,793 07
Balance required to complete section		$ 198,799 89

Proportion of work completed, 46.2 per cent.

Section "O"—McMahon & Montgomery Co. et al., Contractors.

Owing to the enlargement of the windage basin and the increase of the channel to its full width at the site of the proposed Pan Handle Bridge, based on the Sherzer type, the qantities for this section have been considerably increased. The enlargement of the basin increases the quantities 61,322 cubic yards, and the widening of the channel on account of the proposed Pan Handle Bridge increases the amount 110,977 cubic yards.

The work done by the contractors for this section during the year was 160,204 cubic yards of glacial drift from the Main Channel prism and 1,476 cubic yards of surface ditches.

McMahon & Montgomery Company et al., who were ordered last year to build the Pan Handle temporary trestle structures to be used by the several railroad companies at that point pending the availability for use of the permanent eight-track bridge, completed their work on September 16th at a total cost to the District of $14,226.39 (Voucher No. 2,577, Engineering Department Files).

On October 12th (page 5,194–5) the Board authorized the Chief Engineer to have constructed an additional temporary trestle at the Pan Handle crossing for the Union Stock Yards & Transit Company, and four thousand ($4,000.00) dollars were appropriated for same. On October 12th (page 43 of his letter book) the Chief Engineer ordered the Star Construction & Dredging Company to build this trestle at the following prices: Piles, 30 cents per lineal foot; erection of structure with timber furnished by contractor, $28.00 per thousand feet, B. M.; erection of structure with timber furnished by Sanitary District, $7.00 per thousand feet, B. M. The structure was not completed during the year.

The several railroad companies in interest at the Pan Handle crossing submitted a number of bills during the year for expenses incurred at that point, as have also a number of outside parties, for material and labor furnished on account of the Western Avenue and Pan Handle temporary trestles. The amounts vouchered on account of these trestles during the year are as follows:

McMahon & Montgomery Co. et al., pile and timber work	$ 12,257 03
Crerar, Adams & Co., spikes for repairs	7 80
C. T. T. R. R. Co., miscellaneous expenses	936 91
A. T. Wilcox, labor account repairs	67 75
P. C. C. & S. L. Ry. Co., miscellaneous expenses	548 47
Chicago Junction R. R. Co., miscellaneous expenses	998 51
Illinois Central R. R. Co., miscellaneous expenses	97 94
G. M. Huss, furnishing lumber from C. T. T. R. R. Co.'s trestle, Section E.	145 46
Chicago Star Construction & Dredging Co. (construction of U. S. Y. & T. Co.'s trestle)	1,735 00
J. B. Cox (lumber for U S. Y. & T. Co.'s trestle)	418 35
A. T. Wilcox, repairs on Western Avenue trestle	111 25
Fred Thomas, hauling cinders Western Avenue roadway	21 00
Total	$ 17,340 47

For the permanent bridges on this section, see division of this report relating to Bridges.

The condition of work on this section is as follows:

Narrow channel and original basin, prism, 1,504,736 cubic yards glacial drift at 21c	$ 315,994 56
Enlargement of basin, prism, 61,322 cubic yards glacial drift at 21c	12,877 62
Enlarged channel east of Pan Handle bridge, prism, 44,927 cubic yards glacial drift at 21c	9,445 17
Enlarged channel under Pan Handle Bridge, prism, 66,000 cubic yards glacial drift at 21c	13,860 00
Collateral channel, 132,009 cubic yards glacial drift at $0.199	26,269 79
Borrow pits, 4,699 cubic yards glacial drift at 21c	986 79
Surface ditches, 3,766 cubic yards glacial drift at 21c	790 86
Removal of temporary roads, 5,526 cubic yards glacial drift at 21c	1,160 46
Narrow cut account Western Avenue temporary bridge	3,984 54
Dredge pit account Pan Handle temporary bridge	5,550 61
Western Avenue temporary bridges and roadways	8,659 76
Pan Handle temporary bridges and roadways	42,771 55
Total cost of section	$ 442,351 71
Amount earned to January 1, 1899	392,849 41
Unfinished work	$ 49,502 30
Reserved percentages	41,576 89
Unpaid vouchers	60 12
Balance required to complete section	$ 91,139 31

Proportion of work completed, 88.8 per cent.

Section "N"—Hayes Bros. et al., Contractors.

Work on this section was continued throughout the year, during which time 201,160 cubic yards of glacial drift were excavated from the Main Channel prism and 748 cubic yards of surface ditches.

On July 28th and 29th, under verbal order of the Chief Engineer, the Chicago Star Construction and Dredging Company repaired the Kedzie Avenue temporary roadway at a cost of $37.76 (Voucher No. 2689, Engineering Department files). On January 20th, Hayes Bros. et al., submitted a bill for work done on December 26, 1897, for repairing and surfacing this same roadway. This work was done under verbal authority of the Chief Engineer and passed by the Board on February 9th (Voucher No. 2392, Engineering Department files).

During the year four vouchers were issued in favor of the A., T. & S. F. Ry. Co. for expenses incurred on account of this company's temporary trestle on this section, which amounted to $948.25.

For the permanent bridges on this section, see division of this report relating to Bridges.

The condition of work on this section is as follows:

Main Channel prism, 1,105,443 cu. yds. glacial drift at 23c	$ 254,251 89
Surface ditches, 8,400 cu. yds. glacial drift at 23c	1,932 00
A., T. & S. F. Ry. Co.'s temporary bridge, including 1,446 cu. yds. glacial drift at 23c	3,444 78
Kedzie Avenue temporary roadway	810 03
Total cost of section	$ 260,438 70
Amount earned to January 1, 1899	204,116 30
Unfinished work	$ 56,322 40
Reserved percentages	$ 24,982 69
Unpaid vouchers	1,320 80
Balance required to complete section	$ 82,625 89

Proportion of work completed, 78.4 per cent.

Section "M"—The Heidenreich Company, Contractor. (Charles E. Schlytern, Assignee.)

The final voucher for this section was rendered November 9, 1896. The total cost of the section is $158,015.06 (page 3832).

Section "L"—The Heidenreich Company, Contractor. (Charles E. Schlytern, Assignee.)

The final voucher for work done on this section was rendered November 9, 1896. The total cost of the section is $218,106.38 (page 3832), $819.32 of which is still unearned and is involved in the C. & W. I. Belt R. R Co.'s right of way.

Section "K"—Christie & Lowe, Contractors.

The final voucher for work done on this section was rendered November 9, 1896. The total cost of the section is $295,187.79 (page 3833), $7,888.25 of which is still unearned and is involved in the C. & W I. Belt R. R. Co.'s right of way.

Section "D"—Christie & Lowe, Contractors.

The final voucher for this section was rendered October 31, 1896. The total cost of the section is $289,846.00 (page 3833).

Section "H"—Gahan & Byrne, Contractors.

The final voucher for work done on this section under original contract was rendered November 19, 1896 (page 3643). The last voucher for work done under supplemental contract was rendered December 1, 1897 (Voucher No. 2.350, Engineering Department files). The total cost of this section is $317,-660.19 (page 4596), $28,129.13 of which is still unearned and is involved in the A., T. & S. F. Ry. Co.'s right of way on this section.

Section "G"—Gahan & Byrne, Contractors.

In that portion of the last Annual Report relating to this section (page 4596), it was stated that the work was completed with the exception of that part of it occupied by the Santa Fe roadbed and right of way, which amounts to about 41,210 cubic yards of glacial drift. During the year of 1898, 2,142 cubic yards of this amount were excavated and the remainder will be taken out as soon as the A., T. & S. F. Ry. Co. lays its tracks across its new railroad bridge near that point. On June 17th a voucher for $1,000.00 (No. 2474 Engineering Department files) was rendered by this Department to Gahan & Byrne for pumping out this section in order to excavate the Santa Fe right of way. This work was authorized by the Committee on Engineering on May 9th.

The condition of work on this section is as follows:

Main Channel prism, 1,355,844 cu. yds. glacial drift at 28c	$ 379,636 32
Extra width section "F" connection, prism, 221 cu. yds. glacial drift at 28c	61 88
Surface ditches, 7,676 cu. yds. glacial drift at 28c	2,149 28
Slides, 32,163 cu. yds. glacial drift at 28c	9,005 64
Draining impounded water	324 92
Removing spoil bank, force account	4,200 00
Excavation of trench, force acount	2,325 04
Pumping water out of section	1,000 00
Total cost of section	$ 398,703 08
Amount earned to January 1, 1899	387,701 88
Unfinished work	$ 11,001 20
Reserved percentage	164 50
Balance required to complete section	$ 11,165 70

Proportion of work completed, 97.2 per cent.

Section "F"—Gahan & Byrne, Contractors.

The contractors for this section worked continuously from May to the end of the year, and the following quantities were vouchered during that period: 57,417 cubic yards of glacial drift from the Main Channel; 1,408 cubic yards of glacial drift in the construction of surface ditches; 36,762 cubic yards of solid rock (see Vouchers Nos. 18 and 23) from the Main Channel; 23,911 cubic yards of glacial drift of revetment excavation and 19,643 cubic yards of revetment wall. The section was virtually completed at the end of the year but no final voucher was rendered during that period.

On account of the Weir, McKechney & Co.'s Bridge conveyor interfering with the spoiling of material excavated by the present contractors for this section, the Chief Engineer on April 3, 1897, ordered Gahan & Byrne to move it out of the way. The work was done in the months of August and September of that year, and the voucher, amounting to $272.55, was issued on January 11, 1898 (Voucher No. 193, Engineering Department files). This item was charged to the account of Weir, McKechney & Co.

The condition of work on this section is as follows:

Main Channel prism, 497,763 cu. yds. glacial drift at 23¾c	$ 118,218 71
Surface ditches, 1,147 cu. yds. glacial drift at 23¾c	272 41
River Diversion prism, 65,308 cu. yds. glacial drift at 23¾c	15,510 65
River Diversion ditches, 1,606 cu. yds. glacial drift at 23¾c	381 43
Levee borrow, 91,320 cu. yds. glacial drift at 23¾c	21,688 50
Main Channel prism, 565,417 cu. yds. glacial drift at 29½c	166,798 02
Main Channel prism, 41,060 cu. yds. solid rock at 90c	36,900 00
Surface ditches, 1,408 cu. yds. glacial drift at 29½c	4,158 60
Revetment excavation, 24,000 cu. yds. glacial drift at 29½c	7,080 00
Revetment wall, 22,000 cu. yds. at 45c.	9,900 00
Spillway excavation, 4,713 cu. yds. glacial drift at 69,9-10c	3,294 60
Spillway construction	17,223 81
Excavation near spillway, 16,500 cu. yds. glacial drift at 70.62c	11,658 09
Raising Santa Fe bridge No. 5	5,875 65
Total cost of section	$ 418,950 47
Amount earned to January 1, 1899—	
During Ricker, Lee & Co.'s contract, as per vouchers	$ 195,397 31

During Weir, McKechney & Co.'s contract as per vouchers	$ 115,476 87	
During Gahan & Byrne's contract, as per vouchers	101,732 27	
		$ 412.606 45
Unfinished work, as estimated		$ 6,344 02
Reserved percentages, as per vouchers		46,819 91
Unpaid vouchers		7,846 75
Balance required to complete section		$ 61,010 68

Proportion of work completed, 98.5 per cent.

Section "E"—Halvorson, Richards & Co., Contractors, Successors to Angus & Gindele.

The contractors for this section continued work throughout the entire year, and the following quantities were vouchered on their regular contract during that period: 96,458 cubic yards of glacial drift, and 139,683 cubic yards of solid rock (see Vouchers Nos. 85 and 87) from the Main Channel; 155,250 cubic yards of revetment excavation, and 135,812 cubic yards of revetment wall.

During the month of March, Halvorson, Richards & Co. removed numerous boulders from the slopes in the Lyons-Summit temporary roadway, and on July 22d and August 24th two vouchers, one for $56.35 and the other for $44.03, were issued to them on this account (Vouchers Nos. 2,508 and 2.546, Engineering Department files). This work was done by verbal order of the Chief Engineer.

During the past year these same contractors completed the Lyons-Summit Road temporary bridge which was contracted for in 1897, and a final voucher was issued for this work on August 1st (Voucher No. 2,510, Engineering Department files).

In the months of October and November of 1897, Gahan & Byrne constructed guard fences along the Lyons-Summit Road temporary bridge crossing the Main Channel, and on January 11, 1898, a voucher for $42.43 was rendered to them on this account (Voucher No. 192, Engineering Department files). This work was done by verbal order of the Chief Engineer.

Ten vouchers, aggregating $1,378.37, were issued during the year to the C. T. T. R. R. Co. for miscellaneous expenses incurred on account of its temporary bridge crossing the Main Channel on this section (last voucher issued December 7th, No. 2,684, Engineering Department files). During the year the C. T. T. R. R. Co.'s permanent bridge over the Main Channel was completed and put to use by the company and the temporary bridge taken down. This work was done by George M. Huss, by order of the Chief Engineer and as per acceptance by the contractor dated December 5, 1898. The entire cost of the work was $542.18, and the voucher for this amount was issued on December 22nd (Voucher No. 2705, Engineering Department files).

The C. T. T. R. R. Co. elected to build its temporary bridge over the Desplaines River, and on December 15th, a voucher for $3,353.40 was issued to it for this work (Voucher No, 2683, Engineering Department files).

The condition of work on this section is as follows:

Main Channel prism, 467,640 cu. yds. glacial drift at 27½c		$ 128,601 00
River Diversion prism, 68,769 cu. yds. glacial drift at 27½c		18,911 47
River Diversion, 5,564 cu. yds. glacial drift at 27½c		1,530 10
Borrow pits for levee, 21,385 cu. yds. glacial drift at 27½c		5,880 88
Overhaul, 9,641 cu. yds. glacial drift		2,579 45
Ballasting Summit Highway		190 01
Removal of I. & M. Canal Bridge (C. & A. R. R.)		260 00
Main Channel prism, 1,219,689 cu. yds. glacial drift at 27c		332,016 03
Surface ditches, 5,563 cu. yds. glacial drift at 27c		1,502 01
Ricker, Lee & Co.'s levee removal, 416 cu. yds. glacial drift at 27c		112 32
Main Channel prism, 200,000 cu. yds. solid rock at 70c		140,000 00
Revetment excavation, 209,000 cu. yds. glacial drift at 27c		56,430 00
Revetment wall, 205,000 cu. yds. at 45c		92,250 00
C. T. T. R. R. Co.'s temporary bridge, Main Channel		7,007 38
C. T. T. R. R. Co.'s temporary bridge, Desplaines River		3,353 40
Lyons-Summit Road temporary bridge, Main Channel		4,358 02
Total cost of section		$ 794,982 07
Amount earned to January 1, 1899—		
During Streeter & Kenefick's contract, as per vouchers	$158,371 74	
During Angus & Gindele's contract, as per vouchers	240,226 02	
During Halvorson, Richards & Co.'s contract, as per vouchers	322,146 18	
		$ 720,743 94

Unfinished work, as estimated.....	$ 74,238 13
Reserved percentages.....	87,874 45
Unpaid vouchers.....	11,652 70
Balance required to complete section	$ 173,765 28

Proportion of work completed, 90.7 per cent.

Section "D"—E. D. Smith & Co., Contractors.

On March 2nd (page 4582), the Board of Trustees reduced the bond of the contractors on this section from $75,000.00 to $5,000.00 and released their supplemental bond of $75,000.00 which was given at the time the section was enlarged from station 510 to the westerly boundary line of the right of way of the C. T. T. R. R. Co.

The final voucher on this section was rendered November 16, 1897. The cost of the section is $594,919.83 (page 4600).

Section "C"—Western Dredging & Improvement Company, Contractor.

The work on this section was completed in September, 1898, and the quantities vouchered during the year were as follows: 8,482 cubic yards glacial drift from the Main Channel; 8,251 cubic yards of glacial drift from the River Diversion, and 2,555 cubic yards of slope revetment.

On February 9th (pages 4552–3), the Board authorized the issuance of a voucher to this company for $10,000.00 of its reserved percentage for the purpose of paying its indebtedness to the laborers, etc., on this section. The money was disbursed under the direction of the Clerk of the District, and on March 30th (pages 4696–7), he reported that $9,834.96 of this amount had been paid to the company's creditors and the balance, which amounted to $165.04, was paid to the contractor (Voucher No. 2384, Engineering Department files).

On July 29th (pages 5011–12), the Board authorized its President and Clerk to divert from the reserved percentage due the contractor for this section, a sufficient amount to pay additional indebtedness incurred by the said contractor. The total amount paid under this order was $3,610.08, and on August 13th this Department issued a voucher against the said reserved percentage for this amount (Voucher No. 2531, Engineering Department files).

On October 12th (page 5191), the final voucher for this section was submitted to the Board and was referred to the Committee on Engineering. On December 14th (pages 5323–4), the Board ordered the payment of this final voucher with the exception of $7,500.00, which was held to cover the claim against the company, which was pending in the court (Voucher No. 2674, Engineering Department files.)

On November 30th (page 5288), Mr. John M. Duffy, Attorney for the contractor for this section, sent a communication to the Board, informing it that the Western Dredging and Improvement Company intended to file with the Sanitary District a claim for "additional compensation over and above the price per yard provided in their contract for glacial draft for the excavation of certain conglomerate hard material from said Section C." The communication was referred to the Joint Committee on Engineering and Judiciary. On December 21st (page 5356) a statement of this company's claims was presented to the Board and referred to the Committee on Judiciary.

The condition of the work on this section is as follows:

Main channel prism, 1,850,493 cubic yards glacial drift at 23½c.....	$ 434,865 86
Muck berm, 26,643 cubic yards glacial drift at 23½c.....	6,261 11
Surface ditches, 1,853 cubic yards glacial drift at 23½c.....	435 46
Slope washouts, 2,556 cubic yards glacial drift at 23½c.....	600 66
Revetting slopes, 2,555 cubic yards glacial drift at 23½c.....	600 42
River diversion prism, 170,788 cubic yards glacial drift at 23½c.....	40,135 18
Saving building sand, 6,253 cubic yards at 12½c.....	781 63
Raising I. & M. Canal spoil bank.....	579 08
Total cost of section.....	$ 484,259 40
Amount earned and paid to January 1, 1899.....	484,259 40

Proportion of work completed, 100 per cent.

Section "B"—Heldmaier & Neu, Contractors.

The final voucher on this section was rendered September 11, 1897. The supplementary final was rendered September 16, 1897.

The cost of the section is $498,587.76 (page 4,601).

Section "A"—Heldmaier & Neu, Contractors.

As was stated in last year's report (page 4,601) this section was completed in 1897, but

the final voucher was not rendered that year. This voucher was issued by this Department on the 8th of January, 1898, and 14,273 cubic yards of glacial drift from the Main Channel were vouchered thereon. The final certificate for same was submitted to the Board on January 12th (page 4478) and was referred to the Committee on Engineering. On January 26th (pages 4521-2) the Board authorized the payment of this final voucher, which amounted to $108,097.00 (Voucher No. 2,379, Engineering Department files).

On February 9th (pages 4547-8) the Board approved the new bond of these contractors, amounting to $108,097.00, and which was requested on January 26th (pages 4521-2) as a protection against any liability arising out of any suits against the contractors which were pending in the courts.

On June 1st (pages 4846-7) the Board authorized the reduction of the original bond of these contractors from $75,000.00 to $5,000.00, and on July 20th (page 4978) the reduced bond was formally accepted by the said Board.

The condition of work on this section is the same as was shown in the last Annual Report (pages 4601-2), with the difference that the balance remaining to be vouchered at that time has since been wiped out by the issue of the final voucher for a like amount.

Section 1—Griffiths & McDermott, Contractors.

On January 5th (page 4448), the Board approved a new bond of the contractors for this section, amounting to $5,000.00, in lieu of their original bond of $100,000.00.

This section was reported in last year's report (page 4602) as having been entirely completed. On October 3rd, however, a little work was done by Geo. F. Keller, filling in the Willow Springs Road Temporary Bridge approach with gravel which is chargeable to this section. The voucher, amounting to $7.00 was issued on October 3rd and passed by the Board October 12th (Voucher No. 2,587, Engineering Department files).

The condition of work on this section is the same as was shown in the last Annual Report (page 4602) with an addition of the item of $7.00 as noted above.

Section 2—McArthur Bros., Contractors.

The final voucher on this section was rendered February 16, 1897. The total cost of the section is $940,975.86 (page 4603).

Section 3—Gilman & Co., Contractors.

The final voucher on this section was rendered October 31, 1896. The total cost of the section is $841,291.35 (page 4603).

On January 19, 1898 (page 4504), the Board reduced the bonds of these contractors from $100,000.00 to $5,000.00.

Section 4—McArthur Bros., Contractors.

The final voucher on this section was rendered January 26, 1897. The total cost of this section is $1,058,638.66 (pages 4603-4).

Section 5 — The Qualey Construction Company, Contractor.

The final voucher on this section was rendered April 1, 1897. The total cost of this section is $755,860.92 (page 4604).

Section 6—Mason, Hoge, King & Co., Contractors.

The final voucher on this section was rendered October 31, 1896. The total cost of the section is $742,193.37 (page 3840).

Section 7—Mason, Hoge & Co., Contractors.

The final voucher on this section was rendered October 31, 1896. The total cost of the section is $797,495.93 (pages 3840-1).

Section 8—Mason, Hoge, King & Co., Contractors.

As was stated in the last Annual Report (page 3841), this section was completed in 1896, except that portion lying within the limits of the Santa Fe right of way. The final voucher for said work was rendered on October 31, 1896.

On March 2, 1898 (pages 4581-2), the Board ordered the payment to the regular contractors for this section, the $15,000.00 withheld from their reserved percentage as ordered by the Board on June 23, 1897 (pages 4064-5). On March 16th, (pages 4666-7), the Clerk was instructed to pay the said sum to the said contractors upon the execution and filing of the receipt and release in the form published in the above mentioned pages.

On April 13th (page 4742), the Board ordered placed on file the claim for extra work by these contractors for moving channelers and cableways on this section.

On May 18th (page 4813), the Board ordered the advertisement for the removal of that portion of the rock in the Main Channel which lies in the Santa Fe right of way, and bids were received for same on July 20th (pages 4978-9). On July 29th (5009-10), the Board awarded this work to Mason, Hoge, King & Co., who were the lowest bidders, said bid being 63 cents per cubic yard. The bond on this contract was approved by the Board on August 10th (pages 5059-67). Under this contract, these contractors excavated 4,000 cubic yards from the Main Channel during the year.

The condition of work on this section is as follows:

Main Channel prism, 43,578 cu. yds. glacial drift at 26c	$ 11,330 28
Approaches to Stephens Street Bridge, 6,592 cu. yds. glacial drift at 26c	1,713 92
Main Channel prism, 1,140,408 cu. yds. solid rock at 74¾c	852,454 98
Main Channel prism, 19,782 cu. yds. solid rock at 63c	12,462 66
Scabbling for retaining wall foundation, 728 cu. yds. solid rock at 74¾c	540 44
Tunnel and open cut under Santa Fe tracks, excavation, 121.1 cu. yds. solid rock at $1.50	181 65
Tunneling, 92 lin. ft. at $6.00	552 00
Retaining wall, 2,874.9 cu. yds. at $3.25	9,343 43
River Diversion prism, 57,766 cu. yds. glacial prift at 26c	15,019 16
Approaches to Stephens Street Bridge, 136 cu. yds. glacial drift at 26c	35 36
River Diversion prism, 99,399 cu. yds. solid rock at 74¾c	74,300 76
Mason, Hoge, King & Co.'s settlement of claims	5,011 41
Agnew & Co.'s settlement of claims	2,000 00
Moving cable towers	2,992 15
Moving telegraph lines	487 58
A., T. & S. F. Ry. Co.'s temporary bridge, Desplaines River	$ 18,738 80
Stephens Street temporary bridge, Main Channel	1,115 09
Suppressing fires on and repairing levee	245 07
Stephens Street improvement	1,000 00
Quarrying dimension stone, 1,370.2 cu. yds. at $1.00	1,370 20
Total cost of section	*$1,010,894 94

*The item of Stephens Street (Lemont Road) Bridge across the Desplaines River was taken from the account of this section and placed in the Bridges Estimate.

Amount earned to January 1, 1899	$1,000,952 28
Unfinished work	9,942 66
Reserved percentages	315 00
Balance required to complete section	$ 10,257 66

Proportion of work completed, 99 per cent.

Section 9—Holvorson, Richards & Co., Contractors.

The final voucher on this section was rendered on October 31, 1896. The total cost of the section is $819,424.30 (page 3842).

Section 10—E. D. Smith & Co., Contractors.

The final voucher on this section was rendered October 31, 1896. The total cost of the section is $1,009,136.70 (page 4606). The item of Western Stone Company's bridge across the Desplaines River was taken from the account of this section and placed in the Bridges Estimate.

On January 12, 1898 (pages 4478-9) the Western Stone Company presented to the Board claims amounting to $956.94 for damages alleged to have been caused by the blowing up of a bridge crossing the Main Channel at its quarry No. 5, on August 31, 1895. The matter was referred to the Joint Committee on Engineering and Finance on that day.

On March 2nd (page 4582) the Board reduced the bonds of these contractors from $100,000.00 to $5,000.00.

Section 11—Mason, Hoge & Co., Contractors.

The final voucher on this section was rendered on October 31, 1896. The total cost of the section is $841,571.92 (page 3843).

Section 12—Mason, Hoge & Co., Contractors.

The final voucher on this section was rendered on October 31, 1896. The total cost of the section is $860,549.99 (pages 4606-7).

Section 13—Mason, Hoge & Co., Contractors.

The final voucher on this section was rendered on October 31, 1896. The total cost of the section is $819,388.19 (pages 3843-4).

Section 14—Smith & Eastman, Contractors for Excavation. Campbell & Dennis, Contractors for Retaining Wall.

The final voucher to Smith & Eastman was rendered on October 31, 1896 (total cost, $852,122.29, page 3679), and to Campbell & Dennis on August 16, 1897, (total cost, $79,334.81, page 4167). The entire cost of the section is $931,457.10 (page 4607).

On February 9, 1898 (page 4547), the Board authorized the payment to Smith & Eastman of $33,798.70 of the $39,549.18 which was withheld from their reserved percentage on account of claims previously pending against these contractors and that the remaining $5,750.48 be retained on account of the pending claim of the Bates Machine Company. On February 16th (page 4568), these same contractors presented a communication to the Board in reference to the amounts withheld by it from them and the matter was referred to the Joint Committee on Judiciary and Engineering. On February 24th (page 4575), the Board authorized its Clerk to deliver to these contractors $33,798.70 on condition that they waive all claims for interest thereon and also that they agree to the retention by the District of $5,750.48 as security for any claims against them.

Section 15—Wright, Meysenburg, Sinclair & Carry, Contractors for Excavation and Retaining Wall.

The final voucher for this contract was rendered January 21, 1897, the total cost of which is $552,033.46 (pages 4607-8).

On April 27, 1898 (page 4779), these contractors presented a communication to the Board in reference to a release of bond on this contract, which was referred to the Committee on Judiciary. On May 11th (page 4807), the Board authorized the reduction of their bond from $100,000 to $5,000, and on June 16th (pages 4889-90), the new bond was approved.

Section 15—Christie & Lowe and Griffiths & McDermott, Contractors, Disposal Works.

CHRISTIE & LOWE CONTRACT—On August 24th (page 5129), these contractors presented a communication to the Board asking for a reduction of the bond of their contract which was referred to the Committee on Finance. On October 12th (page 5192), the Board approved a new bond for $5,000 00 in lieu of the original.

On November 23rd (page 5277) these contractors presented a communication to the Board making claims for extras on their contract on account of the substitution of the equalizing device for the one bid on for the Bear Trap Dam and for the loss of time occasioned by the failure on the part of the District to prepare the foundations for the said dam in time for them to complete their contract as intended. The matter was referred to the Committee on Engineering. On December 28th (pages 5376-7) the Board reported on this matter and authorized the payment to these contractors of $4,000.00 on account of work to be done under their contract, and that the said amount be charged to their account.

GRIFFITHS & MCDERMOTT CONSTRUCTION COMPANY CONTRACT—This company practically completed the masonry work in last November. The amount vouchered to it during the year 1898 was 5,020 cubic yards of concrete masonry.

On January 8th a voucher for $231.23 was issued to the Griffiths & McDermott Construction Company for labor expended in June, July and August of 1897 in removing iron from a point which interfered with the progress of its work.

The condition of work on these contracts is as follows:

Christie & Lowe—	
Excavation, 1,238 cubic yards solid rock at 59c.....$	730 48
Concrete, 836.8 cubic yards at $5.00.	4,184 00
Lump sum for sluice gates.....	120,000 00
Lump sum for Bear Trap.....	58,000 00
Total for Christie & Lowe.....$	182,914 42
Griffiths & McDermott—	
Excavation, 8,867 cu. yds. solid rock at $2.00.....$	17,734 00
Concrete, 5,200 cu. yds. at $3.00.....	15,600 00
Concrete, 2,901 cu. yds. at $3.60.....	10,443 60
Concrete, 2,450 cu. yds. at $4.60.....	11,270 00
Lump sum for metal and lumber...	14,200 00
Extra labor removing iron.....	231 23
Total for Griffiths & McDermott Construction Co.....$	69,478 83
Total cost of Disposal Works.....$	252,393 25

Amount earned to January 1, 1899—		
Christie & Lowe.....	$ 182,914 42	
Griffiths & McDermott..	60,664 83	
		$ 243,579 25
Unfinished work.....		$ 8,814 00
Reserved percentages—		
Christie & Lowe.....	$ 4,900 00	
Griffiths & McDermott Construction Co.....	6,489 20	
		$ 11,389 20
Balance required to complete work.		$ 20,203 20

Proportion of work completed, 96.5 per cent.

Section 16—Hayes Brothers, Contractors.

On January 19th (page 4489), the Chief Engineer transmitted a form of advertisement for this section which was referred to the Committee on Engineering, and on February 2d (pages 4531–31), the Board authorized the same to be advertised.

On April 6th (pages 4730–1), the bids for this work were opened and referred to the Chief Engineer for tabulation. On April 13th (pages 4743–51), the Board awarded the contract to Hayes Brothers, who were the lowest bidders. The prices bid for this work ranged from 39 cents to 58½ cents per cubic yard. On April 20th (page 4761), the Board approved the bond on this contract and Hayes Brothers immediately began operations. These contractors excavated 96,000 cubic yards during the year.

Under the extra work clause of their contract, Hayes Brothers built and graded a new Lockport Road, which crosses this section. This road was diverted from its old location and is being used for traffic while the Lockport Road new bridge is being constructed. During the year, $1,138.90 were vouchered on this account (Voucher No. 2,712, Engineering Department files). On November 21st (see his letter book, page 102), the Chief Engineer ordered P. T. Dunn & Co. to install electric lights at each end of this temporary road at a total cost of $50.00 for installation and $7.00 a month for furnishing lamps and current. During the year $52.33 were vouchered on this account (Voucher No. 2,680, Engineering Department files).

The condition of work on this section is as follows:

Main Channel prism, 165,000 cu. yds. at 39c.....	$64,350 00
Lockport temporary road.....	1,191 23
Total cost of section	$65,541 23
Amount earned to January 1, 1899....	38,631 23
Unfinished work.....	$26,910 00
Reserved percentage.....	4,680 00
Unpaid vouchers.....	615 73
Balance required to complete.....	$22,205 73

Proportion of work completed, 58.9 per cent.

Section 17—Heldmaier & Neu, Contractors.

On January 19th (page 4489), the Chief Engineer transmitted a form of advertisement for this section which was referred to the Committee on Engineering. On February 2nd (pages 4531–3), the Board authorized the same to be advertised.

On April 6th (pages 4730–1), the bids for this work were opened and referred to the Chief Engineer for tabulation. On April 29th (pages 4781–5), the Board awarded the contract to Heldmaier & Neu. The firm of J. C. Regan & Co. were the lowest bidders, but were considered by a majority of the Board as unable to carry on a contract of such magnitude. On April 30th (pages 4788–96), the Board approved the bond on this contract. During the year these contractors performed the following work—94,400 cubic yards solid rock; 71,500 cubic yards of earth and 14,500 cubic yards of levee embankment.

On October 21st, a voucher for $302.21 was issued to the A., T. & S. F. Ry. Co. for sundry work in connection with changing telegraph lines. This work was done under the general contract between the Santa Fe Company and the Sanitary District (Voucher No. 2,622, Engineering Department files).

The condition of work on this section is as follows:

Main Channel prism, 287,470 cu. yds. glacial drift at 29c.....	$ 83,366 30
Main Channel prism, 328,560 cu. yds. solid rock at 63c.....	206,992 80
Construction of levee, 18,000 cu. yds. at 39c.....	7,020 00
Changing location of telegraph lines..	302 21
Total cost of section.....	$ 297,681 31
Amount earned to January 1, 1899....	86,164 21

Unfinished work	$ 211,517 10
Reserved percentage	10,732 75
Unpaid vouchers	16,479 75
Balance required to complete	$ 238,729 60

Proportion of work completed, 28.9 per cent.

Section 18—Gahan & Byrne, Contractors.

On February 16th (page 4568) Trustee Jones presented an order to the Board for the advertisement of the work on Desplaines River in and near Joliet, which was referred to the Committee on Engineering. On February 26th (page 4577) Trustee Kelly, Chairman of the said Committee, requested further time in which to report on same, which was granted. On March 2nd (page 4583) Trustee Kelly again asked for an extension of time in this matter, which was granted. On April 6th (page 4729) the Committee on Engineering reported that the plans for this work were changed and recommended that the original order of February 16th be placed on file. The Board adopted said report and concurred in said recommendation on that date.

On April 29th (page 4785) the Board ordered the advertisement of the work of this section under the revised plans, and on June 29th (pages 4929–31) the bids on same were presented to the Board and referred to the Chief Engineer for tabulation. On July 13th (pages 4960–1) the Board awarded the contract to Gahan & Byrne, and on July 29th (pages 4991–5004) the bond was approved on same. On August 3rd (pages 5016–17) the Board reduced the said bond from $100,000.00 to $25,000.00. On December 14th (page 5345) the Board received a communication from the contractors on this section asking assurance of protection and indemnification from possible claims that may arise during the progress of the work. The communication was referred to the Committee on Engineering.

The condition of work on this section is as follows:

Excavation of Desplaines River channel, prism, 175,500 cu. yds. glacial drift at 45.2c	$ 79,326 00
Excavation of I. & M. Canal channel, prism, 7,670 cu. yds. glacial drift at 58c	4,448 60
Excavation for construction of core, 55,400 cu. yds. glacial drift at 22c	12,188 00
Removal of Dams Nos. 1 and 2 and Adams Dam	4,000 00
Construction of new dam above —59.0	$ 17,751 00
Construction of new dam below —59.0, 150 cu. yds. concrete at $1.50	225 00
Excavation for retaining wall foundation, 2,000 cu. yds. glacial drift at 36c	720 00
Retaining wall, 6,300 cu. yds. at $4.05	25,515 00
Excavation from lock wall, 50 cu. yds. glacial drift at $1.50	75 00
Portland cement concrete, repairing lock walls, 250 cu. yds. at $6.00	1,500 00
Construction of wall, By-pass, 400 cu. yds. at $4.05	1,620 00
Furnishing and placing cast iron pipe and water gate, By-pass	3,250 00
Excavation, By-pass, 15 cu. yds. glacial drift at $1.40	21 00
Extra work, account earth core	116 18
Total cost of section	$ 150,735 78
Amount earned to January 1, 1899	19,158 58
Unfinished work	$ 131,597 20
Reserved percentage	2,380 30
Unpaid vouchers	1,460 88
Balance required to complete	$ 135,448 38

Proportion of work completed, 12.7 per cent.

Miscellaneous Work Between Lockport and Joliet.

Under the existing contract with the Illinois and Michigan Canal Commissioners, the Sanitary District is required to maintain navigation during the progress of its work in and near Joliet. On March 23d (page 4694) the Board ordered the Chief Engineer to arrange for the construction of a crib on contract Sections seventeen (17) and eighteen (18). In furtherance of this order, the Chief Engineer made arrangements with the following firms: On March 21st an agreement was entered into with Heldmaier & Neu to do all the necessary work of building the crib and filling the same so as to make it water tight, they to receive 12½ per cent of the labor cost of the work. On March 26th (see his letter book, page 369) the Chief Engineer authorized the South Side Lumber Company to supply the lumber for this work at a price not to exceed $9.50 per thousand feet B. M. The acceptance of same bears date of March 29, 1898. On March 19th the Board of Canal Commissioners submitted a proposal for the use of its canal dredge in the prosecution of this work. The price asked for was $75.00 per day, and the Chief Engineer accepted the said proposal on March 22nd (see his letter book, page 368). On March 26th

(see his letter book, page 866) the Chief Engineer authorized the Consolidated Steel and Wire Company to supply the nails for this work, the price not to exceed $1.50 per one hundred (100) pound keg. Work was begun by Heldmaier & Neu in the latter part of March and practically finished on July 1st.

On April 8th (page 4740) the Board authorized the Clerk to draw a warrant upon the Treasury of the District in the sum of $5,000.00 for the purpose of paying the laborers and employes who were prosecuting the work, and on July 20th (page 4977) the said amount was transferred to the Treasury.

The vouchers presented and paid on this account during 1898 are as follows:

Wm. Adam Lumber Co. (lumber).....$	254 22
South Side Lumber Co. (lumber).....	10,529 86
Consolidated Steel and Wire Co. (nails)	963 05
Board of Canal Commissioners (use of dredge and repairing plant).....	5,250 70
James Reddick (pay rolls).....	11,606 97
Heldmaier & Neu (superintendence, etc).....	3,550 21
Total.....$	32,145 01
Less amount unpaid pay envelopes...	4 12
Total amount paid on crib work....$	32,140 99

Bridges.

This branch of construction was pushed vigorously in 1898. During that period, contracts for eleven substructures and fourteen superstructures were entered into and in a number of cases final vouchers were rendered.

On July 18th (page 4964), a resolution was presented by Trustee Jones that, wherever practicable, no center pier bridges should be constructed by the District in the future. On December 21st (page 5354), the Board placed the said resolution on file.

Van Buren Street Approach Span, Chicago River. Double Roadway Each 18 Feet Wide; Two sidewalks Each 8 Feet Wide; Length, 73 Feet 4 Inches. Chicago Bridge and Iron Company, Contractor.

On October 5th (page 5181), the Board authorized the advertisement of this work, and on December 7th (pages 5308-8a), two bids were received on same, namely, the Chicago Bridge and Iron Company and the Lydon and Drews Company. On December 10th (pages 5311-13), the Board awarded the contract to the Chicago Bridge and Iron Company, which was the lowest bidder. The total cost of this work will be $19,495.88.

On December 31st (pages 5386-7), the Board ordered the elimination of the penalty clause from this contract.

The contract for this work was not executed during the year 1898.

Taylor Street and Chicago Terminal Transfer Railroad Company's Bridges, Chicago River.

On November 23rd (pages 5274-6), the Committee reported on the problem of deepening and widening the Chicago River at and near Taylor street, submitting two alternative propositions for its solution. One was the condemnation of 34,442.50 square feet of land and the other the removal of the Chicago Terminal Transfer Railroad Company's Bridge and the Taylor Street Bridge, with their center piers, and the construction of two new bridges of the bascule type. The relative cost of these two propositions was prepared by the Chief Engineer and the bridge plan was found to be the less costly. The Committee further reported that the Scherzer Rolling Lift Bridge Company's design is the best for use in the premises and recommended that it be adopted by the Board and purchased for the sum of $38,000.00. The report was adopted by the Board on that date.

On December 6th (pages 5291-2), the form of contract with the Scherzer Rolling Lift Bridge Company was approved by the Board and on December 10th (pages 5314-15), the bond on same was approved. A voucher for $12,666.67 was issued to this company on December 13th on account of these two bridges (Voucher No. 2701, Engineering Department files).

South West Boulevard Bridge, Main Channel, Section "O." Double Roadway, Each 24 Feet Wide; Two Sidewalks, Each 6 Feet Wide; Length, 321 Feet; Weight of Steel and Iron in Structure, 1,458,809 Pounds. Benezette Williams, Contractor for Substructure. J. G. Wagner & Co., Contractor for Superstructure.

On May 25th (page 4833), the Chief Engineer presented a final certificate for the work of the substructure of this bridge, which was

referred to the Committee on Engineering. On July 6th (pages 4935–6), this Committee reported that the Chief Engineer had issued a new final certificate in lieu of the one presented to the Board on May 25th, and recommended that the said certificate be paid by the District. The Board concurred in said recommendations on the same date.

On July 13th (page 4962), the contractor for this substructure presented a communication to the Board giving notice that the amount shown on the final certificate passed by the Board on July 6th does not represent the full amount due him. The communication was ordered printed and placed on file.

On December 14th (page 5345), the City Trust Safe Deposit and Surety Company of Philadelphia presented a communication asking for the execution of a release of bond on the contract for this substructure, which was referred to the Committee on Judiciary.

During the year the contractor for the substructure completed 2,577.94 cubic yards of masonry and concrete, and the values vouchered, including the final, were $18,297.48. The final voucher was issued by this department on May 21st (voucher No. 2482, Engineering Department files).

In the Proceedings for June 22d (page 4915), will be found an order of the Board instructing the Clerk to notify Julius G. Wagner, contractor for the superstructure of this bridge, to appear before the Committee on Engineering at its meeting held June 27th.

During the year of 1898, Hayes Bros. et al. continued to haul the excavated material from Section "N" into the Southwest Boulevard and Douglas Park, transferring 129,274 cubic yards during that period.

The condition of the contracts on this bridge is as follows:

Masonry, 2,039 83 cu. yds. at $6 71	$ 13,687 26
Excavation, 7,464.5 cu. yds. glacial drift at 49½c	3,694 93
Piles, 6,004 lin ft. at 27½c	1,651 10
Timber in foundations, 10,560 ft. B. M. at $28.60	302 02
Portland cement concrete, 1,670.61 cu. yds. at $7 31½	12,220 51
Natural cement concrete, 711.5 cu. yds. at $5.00	3,557 50
Coffer dam	8,814 85
Additional cost Bedford stone	3,845 00
Excavation, account original design, 1,289 cu. yds. glacial drift at 45c	580 05
Piles, account original design, 4,809 lin. ft. at 25c	1,202,25
Miscellaneous work	$ 10,366 99
Total cost of superstructure	53,016 83
Hauling 200,000 cu. yds. material to Southwest Boulevard and Douglas Park, at 20c	40,000 00
Total cost of bridge	$ 152,938 79
Amount earned to January 1, 1899	97,609 42
Unfinished work	$ 55,329 37
Reserved percentages	4,161 47
Unpaid vouchers	1,693 83
Balance required to complete	$ 61,184 67

Proportion of work completed 63.8 per cent.

Eight-track Bridge on Campbell Avenue, Main Channel, Section "O," for the Joint Use of the Pittsburgh, Cincinnati, Chicago & St. Louis Railway Company, the Chicago & Northern Pacific Railroad Company, and the Union Stock Yard & Transit Company.

Four Double-track Bascule Bridges, Each 150 Feet in Length; and Eight Double-track Approach Spans, Each 145 Feet and 9 Inches in Length, Each Bridge Consisting of One Span and One Approach at Each End of Same.

Scherzer Rolling Lift Bridge Company, Contractor for Substructure and Superstructure.

The Proceedings of 1898 abound with records of the proposed Pan Handle Bridge. On January 12th (pages 4480–3), the Committee reported on the bids for the substructure and superstructure of this bridge (which were referred to that body on December 22, 1897, pages 4430–4), and awarded the substructure to the Lydon & Drews Company, and the superstructure to the King Bridge Company. On January 19th (pages 4489–4504), the Committee on Finance presented to the Board the executed contracts of the two parts of this work, the King Bridge Company's dated January 18th, and the Lydon & Drews Company's dated January 19th. The Board ordered the contracts published on that date. On January 26th (page 4522), the matter of the bond approval for these two contracts was referred to the Joint Committee on Finance and Engineering. On February 2nd (page 4531), the Board approved the said bonds.

On January 26th (page 4523), the Board authorized its President and Clerk to execute certain supplemental agreements with the Lydon & Drews Company and the King

Bridge Company, in connection with this bridge. On February 24th (page 4575), the President reported that the stipulation requested of these two companies had been entered into and executed, which report was received and placed on file on the same date. On February 26th (page 4576), the Board ordered its Attorney to execute, on behalf of the District, an additional supplemental contract to those executed by the President and Clerk under order of the Board on January 26th.

On March 9th (pages 4585-9), the President presented communications from the several railroad companies interested in this structure, indicating their preference for other designs than the one upon which the contracts were let. On March 23rd (pages 4689-90), the Board ordered the contracts of the King Bridge Company and the Lydon & Drews Company annulled.

On March 30th (page 4699) the Board ordered the readvertisement of proposals for this bridge upon any design acceptable to the three railroad companies interested in the structure.

On April 8th (pages 4737-40) the Board authorized the procuring of options from C. L. Strobel and the Scherzer Rolling Lift Bridge Company upon their designs for this bridge, and agreements were entered into with them on the same date. The Sanitary District agreed to pay C. L. Strobel $3,000.00 for the option to purchase his design, and the further sum of $15,000.00 in case the contract should be awarded upon said design. The amount agreed to be paid to the Scherzer Rolling Lift Bridge Company for the option to purchase its design was $8,000.00, and the further sum of $27,000.00 should the contract be awarded upon its design. On May 17th this Department issued a voucher for $4,000.00 (Voucher No. 2445, Engineering Department files), to the Scherzer Rolling Lift Bridge Company as part payment on the purchase of the option, and on June 22nd (page 4913) the Board ordered the payment of the remaining $4,000.00 (Voucher No. 2479, Engineering Department files). On the same date the Board ordered the payment of $3,000.00 to C. L. Strobel as full payment on the purchase of the option on his design (Voucher No. 2478, Engineering Department files).

On June 25th (pages 4917-8) the Board received and placed on file a communication from the Chief Engineer setting forth that he had given instructions to prospective bidders on this bridge to the effect that a deposit of $3,000.00 was all that would be required of any bidder, though he bid upon one or more designs; and that in the comparison of bids he desired to have the co-operation of the several railroads in interest in the examination of the plans and proposals.

On the same date (pages 4918-23) the Chief Engineer transmitted the acceptances by the railroad companies of the designs submitted by five bidders for the work. In his letter transmitting these acceptances, he stated that the New Jersey Steel and Iron Company had also submitted the design of Mr. Breithaupt, which had secured the approval of the railroad companies too late for the submission of a bid; also that the Chicago Bridge and Iron Company presented a bid on the design of Messrs. Franson and Wilmann which is of great merit, but had not received the approval of the Chicago Junction Railway Company. The Board ordered the report received and placed on file, and that no bids be considered that did not meet with the written approval of the three railroad companies. On the same date (page 4923) a communication was received from the New Jersey Steel and Iron Company stating that if it were allowed two weeks more time it would be able to submit a bid. The communication was ordered placed on file.

On this same day (pages 4923-5), the bids for this work were opened and referred to the Chief Engineer for tabulation. On August 6th (pages 5025-33), the Committee on Engineering made several reports on these bids. Trustees Jones, Wenter, Boldenweck, Braden and Smyth favored the Scherzer Rolling Lift Bridge Company's bid; Messrs. Eckhart and Carter favored the Strobel bid; Messrs Mallette and Kelly favored the J. G. Wagner Company's bid, based upon the Schenke design. The Scherzer rolling Lift Bridge Company was awarded the contract on that date and the Committee on Finance was empowered to approve the bonds on same (page 5037). On August 10th (pages 5044-59), the Committee on Finance reported that the contract for this work had been duly executed and that the bond on same had been approved. The contract bears the date August 9, 1898, and appears in the Proceedings of August 10th (pages 5045-59).

On October 12th (pages 5197-8), the Board ordered the re-advertisement of this bridge,

requesting that the bids be based upon the Scherzer design. This was done by reason of the issuance of an injunction by the Superior Court of Cook County, restraining the Sanitary District from the execution of the contract awarded to the Scherzer Rolling Lift Bridge Company and to avoid the delay that might have been occasioned by an adverse decision. On December 28th (pages 5361-2), a report was received from the Attorney of the Board, stating that the injunction issued by the above mentioned court had been dissolved; that the original contract was again in full force, and suggested that the new bids which were received under the advertisement ordered on October 12th and which were to be opened on December 28th, be not opened. The report was referred to the Committee on Judiciary and Engineering on that date.

Acting under the extra work clause of the contract between the Sanitary District and McMahon & Montgomery Company et al., the Chief Engineer, on July 11th (letter book page 143), ordered these contractors to erect two coffer dams, one on each side of the right of way and tracks of the Pan Handle crossing of the Main Channel; "to pump out the water enclosed between them and proceed to excavate the railroad embankments and the natural earth within the limits of the channel cross-section, depositing the material so excavated upon the spoil area designated therefor adjacent to the work." The prices fixed were as follows: Two coffer dams, $2,000.00; excavation, 45 cents per cubic yard. The terms of the order were accepted by the contractors on the same date. During the year these contractors built the two coffer dams and removed 9,624 cubic yards of material.

On August 22nd (see his letter book, page 271) the Chief Engineer ordered Geo. M. Huss to take apart and load upon cars the girders and floor system of the eight-track structure which was used as a part superstructure for the Pan Handle temporary bridge and originally intended to ultimately form a portion of the permanent structure (see note on Pan Handle Bridge on page 4610 of Proceedings). The prices agreed upon were $4.90 per ton of two thousand pounds for taking it apart and loading same on cars, and $1.00 per ton of two thousand pounds for unloading and placing same upon cribbing erected by the contractor at a point or points within two miles from the site of removal. This order was agreed to by the contractor on August 23rd. Four girders were taken apart by this contractor, three of which were used to form the superstructure of the C., M. & N. R. R. Co.'s viaduct across Kedzie Avenue and charged to that account, and one was piled alongside of the site of the Pan Handle Bridge. The cost involved in the taking down and piling up of the last named girder is chargeable to the Pan Handle Permanent Bridge, and a voucher for $245.00 was issued on October 21st to this contractor on this account (Voucher No. 2,617, Engineering Department files).

The condition of the contracts on this bridge is as follows:

Masonry, 2,110 cu. yds. at $12	$ 25,320 00
Piles, 29,600 lineal feet at 30c	8,880 00
Portland cement concrete, 12,250 cu. yds. at $5.50	67,375 00
Auxiliary work, including excavation of bridge pit, 23,000 cu. yds	65,000 00
Extra price for enlarged channel under bridge pit, 66,000 cu. yds. at 24c	15,840 00
Coffer Dams	2,000 00
Lump sum for superstructure	175,565 00
Cost of Scherzer Rolling Lift Bridge design	35,000 00
Cost of Strobel design	3,000 00
Abandoned extra superstructure less portion transferred to the C., M. & N. R. R. Co.'s Bridge over Kedzie Avenue	16,085 88
Total cost of bridge	$ 414,015 88
Amount earned to January 1, 1899	55,345 64
Unfinished work and balance required to complete	$ 335,670 24

Proportion of work completed, 13.4 per cent.

Chicago, Madison & Northern Railroad Co.'s Bridge, Main Channel, Section "N." Double track; Length 479 feet 5 inches; weight of iron and steel in structure 2,511,-140 lbs. McArthur Bros. and Winston & Co., Contractors for Substructure. The Toledo Bridge Company, Contractor for Superstructure.

The contracts for both the sub and superstructure of this bridge were let during the year of 1897. The contractors for the substructure commenced work in the month of June, 1898, and a final voucher was rendered them on December 10th (Voucher No. 2693, Engineering Department files). The final

certificate of the Chief Engineer appears in the Proceedings of December 21st (pages 5353-4).

On June 8th (page 4864), the Board authorized the payment of $20,000.00 on account to the contractor for the superstructure of this bridge (voucher No. 2469, Engineering Department files). On October 1st this Department issued to this same Company its second voucher, amounting to $22,698.40 (Voucher No. 2578, Engineering Department files). The sum of the two amounts is 60 per cent of the contract price, which was paid for the delivery of all of the material at the site of erection. On December 31st (page 5387), the Board authorized a further payment to this contractor of $15,000.00, but the voucher for same was not rendered in 1898.

Miscellaneous work for the year in connection with this bridge is as follows:

Hayes Bros., et. al., continued their contract entered into in 1897, to remove material for bridge masonry foundations for this bridge and placing it in the embankment necessary for the bridge approaches. A final estimate was rendered them on this account on December 1st (Voucher No. 2702, Engineering Department files). The amount earned in 1898 was $4,976.30.

Acting under the verbal order of the Chief Engineer, Hayes Bros. trimmed up the embankments for this railroad company's track deviation, done in 1897. This work was done during the months of May and June at a cost to the District of $435.83 (Voucher No. 2515, Engineering Department files).

Acting under orders of the Chief Engineer under date of August 25, 1898, McArthur Bros. Company and Winston & Co. began the work of completing the new railroad embankment behind the C., M. & N. R. R. Co.'s Bridge abutment. These contractors earned $851.46 on this account during the year (last Voucher No. 2691, Engineering Department files).

Acting under Section 8 of Article 3, of the C., M. & N. R. R. Co.'s agreement with the Sanitary District, the Illinois Central Railroad Company, which is the lessee of the above named company's road, submitted a number of bills during the year for laying tracks and ballasting its new alignment. These bills were all vouchered by this department and amount to $13,434.94 (last Voucher No. 2726, Engineering Department files).

During the year of 1898 the A., T. & S. F. Ry. Co. submitted a bill to the District for $8,782.43, for the cost of raising its tracks between the Pan Handle crossing and Kedzie avenue. This work was done in 1897 and a voucher was drawn in favor of the company for the above amount on March 24th (Voucher No. 2418, Engineering Department files).

The condition of contracts on this bridge is as follows:

Masonry, 2,239.3 cu. yds. at $9.40	$ 21,049 42
Excavation, 14.873 cu. yds. glacial drift at 36c	5,354 28
Piles delivered, 9,791 lin. ft. at 14c	1,370 74
Piles driven, 5,948 lin. ft. at 6½c	386 62
Timber in foundation, 17,712 ft. B. M. at $22.00	389 66
Portland cement concrete, 1,747.7 cu. yds. at $5.00	8,738 50
Natural cement concrete, 249.77 cu. yds. at $3.30	824 24
Total cost of superstructure	71,164 00
Extra cost Main Channel excavation, 99,610 cu. yds. glacial drift at 10c	9,961 00
Raising Santa Fe tracks near Kedzie avenue	13,950 65
Moving fence west of Kedzie avenue.	13 20
Construction of embankment for new alignment	10,557 89
Track laying and ballasting new alignment	13,434 94
Total cost of bridge	$ 157,195 14
Amount earned to January 1, 1899	128,729 54
Unfinished work	$ 28,465 60
Unpaid vouchers	2,806 08
Balance required to complete	$ 31,271 68

Proportion of work completed, 81.9 per cent.

Chicago, Madison & Northern Railroad Company's Bridge, Kedzie Avenue, Section "N;" Double-track, Plate Girder; Length, 80 Feet; Weight, 200,400 Lbs.; McArthur Brothers Company and Winston & Co., Contractors for Substructure.

Proposals for the substructure of this bridge were advertised for in response to the general order of the Board, dated May 11th (page 4809), for the advertisement of all bridges not contracted for.

On August 3rd (pages 5018-19), the Board received bids for the work of the substructure for this bridge, and referred them to the Chief Engineer for tabulation. On August

6th (pages 5033–7), the Board awarded the contract to McArthur Brothers Company and Winston & Co., who were the lowest bidders. On August 24th (pages 5092–5118), the Board approved the bond for this contract. The executed contract is published in the Proceedings for August 24th (pages 5101–9).

During the year of 1898, these contractors had vouchered the following work on this bridge: 1,000 cubic yards of excavation; 488 cubic yards Portland cement concrete; 15 cubic yards masonry.

The eight-track girder system placed on the Pan Handle temporary trestle by McMahon & Montgomery Company in the summer of 1896, and which was intended to form a part of the fixed permanent bridge at that point, was rendered unserviceable on account of the abandonment of the fixed bridge policy. During the year of 1898, an opportunity presented itself to use a portion of this material for the superstructure of the Kedzie Avenue viaduct. On August 23rd, the Chief Engineer entered into an agreement with Geo. M. Huss to move three of these girders to the site of this bridge, and on October 21st, a voucher for $490.00 was issued to this contractor on this account. Two other vouchers were issued on this account, one to the C. T. T. R. R. Co. for $30.00, for switching charges (Voucher No. 2640, Engineering Department files), and the other to the I. C. R. R. Co. for $50.00 for freight charges (Voucher No. 2722, Engineering Department files). That portion of the girder system intended for this bridge is credited to the Pan Handle permanent bridge and charged to the Kedzie Avenue viaduct, the amount being arrived at on the basis of prices for like material at the time of removal.

The contract for the erection of the superstructure for this bridge was not entered into in the year of 1898.

The condition of contracts for this bridge is as follows:

Masonry, 33.88 cu. yds. at $16.00.....$	542 08
Excavation, 1,909 cu. yds. glacial drift at 50c.....	954 50
Portland cement concrete, 561.81 cu. yds. at $7.00.....	3,932 67
Removing three girders from Pan Handle bridge site.....	490 00
Freight and switching charges on three girders.....	80 00
Three girders and two floor systems transferred from the Pan Handle bridge site..... .....$	*5,602 52
Total cost of bridge under contract..... ...$	11,601 77
Amount earned to January 1, 1899....	10,328 52
Unfinished work.....$	1,273 25
Reserved percentage	519 50
Unpaid vouchers.....	50 00
Balance required to complete....$	1,842 75

Proportion of work under contract completed, 89 per cent.

*This item is subject to revision.

Kedzie Avenue Bridge, Main Channel, Section "N." Single Roadway, 21 Feet Wide; Two Sidewalks, Each 5 Feet Wide; Length, 324 Feet 6 Inches; Weight of Metal, 640,525 Pounds. Chicago Star Construction and Dredging Company, Contractor for Substructure. The King Bridge Company, Contractor for Superstructure.

The contract for the substructure of this bridge was entered into in the year of 1897, but no vouchers had been rendered for that period. The contractor completed the work during 1898, and the final certificate of the Chief Engineer for same was presented to the Board on December 21st (page 5350) and referred to the Committee on Engineering on that date. On December 28th (pages 5374–5), the Board passed upon the final certificate and ordered the final voucher paid. On December 31st (page 5388), a communication from this company requesting a release of the bond on its contract was referred to the Committees on Judiciary and Finance. The matter was not disposed of in 1898.

The advertisement for the proposals for the superstructure of this bridge bears date of March 17, 1898, and the bids for same were received by the Board on May 18th (pages 4813–16). These bids were referred to the Chief Engineer for tabulation on the same date. On May 25th (pages 4830–32) the Board awarded the contract to the King Bridge Company, which was the lowest of seven bidders. On June 1st (pages 4837–46) the bond on this contract was approved and the contract published, which bears date of May 31, 1898. On December 28th a voucher for 60 per cent of the contract price, amounting to $12,789.00, was issued to this company

for having delivered the entire iron work at the site of erection.

The miscellaneous work prosecuted during the year in connection with the bridge is as follows:

Hayes Bros., et al., continued their contract entered into in 1897, removing material for masonry foundations for this bridge and placing it in the embankment necessary for the bridge approaches. The amount earned on this account for the year 1898 was $1,197.50, and a final voucher for the entire work was rendered on December 1st (Voucher No. 2702, Engineering Department files).

Acting under the extra work clause of its contract with the Sanitary District, the Chief Engineer, on October 3rd (letter book, page 12) ordered the Chicago Star Construction and Dredging Company to grade the approaches to this bridge with material to be taken from the spoil banks, "or from the excavation necessary to conform to the grade established for these approaches," and fixed the price at 23 cents per cubic yard. The order was accepted by the contractor on the same date. During the year this company earned $395.83 on this account (last Voucher No. 2725, Engineering Department files).

The condition of contracts on this bridge is as follows:

Masonry, 1,344.68 cu. yds. at $6.90....$	9,278 29
Excavation, 5,380 cu. yds., glacial drift at 35c.....	1,883 00
Portland cement concrete, 1,263.32 cu. yds. at $5.....	6,316 60
Natural cement concrete, 278.84 cu. yds. at $3 25.....	906 23
Total cost of superstructure.....	21,315 00
Grading approaches to bridge, 1,721 cu. yds. glacial drift at 23c.....	395 83
Extra cost, Main Channel excavation, 28,081 cu. yds. glacial drift at 10c....	2,808 10
Taking care of spring under pier.....	27 73
Total cost of bridge.....$	42,930 78
Amount earned to January 1, 1899....	34,404 78
Unfinished work.....$	8,526 00
Unpaid vouchers.....	13,354 14
Balance required to complete...$	21,880 14

Proportion of work completed, 80.1 per cent.

Atchison, Topeka and Santa Fe Railway Company's Bridge, Main Channel, Section "N." Double Track; Length 327 Feet 8 Inches; Weight of Iron and Steel in Structure 1,519,183 Pounds. McArthur Brothers Company and Winston & Co., Contractors for Substructure; The Carnegie Steel Company, Limited, Contractor for Superstructure.

The contract for the substructure of this bridge was awarded in 1897, but the work was not prosecuted until the summer of the following year. During that season, these contractors completed their entire contract and a final voucher was issued to them by this Department on December 29th (Voucher No. 2,729, Engineering Department files). The final certificate of the Chief Engineer was not presented to the Board in 1898.

Bids for the superstructure of this bridge were submitted to the Board in 1897. On January 5, 1898 (pages 4450-1), the Board awarded the contract to the Carnegie Steel Company, Limited, which was the lowest of eleven bidders. The contract appears in the Proceedings of that date (pages 4452-60). On January 26th (pages 4517-18), the Board adopted the report of the Committee on Finance upon the execution of the contract, and approval of bonds of same. On October 1st, a voucher for $26,358.67 was issued by this Department to this company, said amount being 60 per cent of the revised contract price and vouchered by reason of the said company having delivered the entire iron work at the site of erection Voucher No. 2614 Engineering Department files .

The miscellaneous work carried on during the year on account of this bridge is as follows:

Hayes Bros., et al, continued their contract entered into in 1897, removing material for masonry foundations for this bridge and placing it in the embankment necessary for the bridge approaches. The amount earned by them in 1898 on this account is $2,752.96. The final voucher for this work was rendered on December 1st · Voucher No. 2702, Engineering Department files).

Acting under orders of the Chief Engineer under date of August 25th, McArthur Brothers Company and Winston & Company began the work of completing the new railroad embankment behind the abutments of this bridge, and earned $306.87 on this account

during the year (last Voucher No. 2691, Engineering Department files).

Acting under the extra work clause of their contract with the Sanitary District, the Chief Engineer ordered Hayes Brothers, et al. to build and place a box drain under the Santa Fe "Y" tracks south of the Main Channel at the west end of Section "N." The voucher for this work was issued on July 21st and amounted to $19.47 (Voucher No. 2514, Engineering Department files).

Acting under Section 10 of Article 1 of its agreement with the Sanitary District, the A. T. & S. F. Ry. Co. raised its main line tracks near the 26th street line crossing, and on December 31st a voucher for $1,034.88 was issued to the above named company for this work (Voucher No. 2723, Engineering Department files).

The condition of contracts on this bridge is as follows:

Masonry, 1,157.93 cu. yds. at $9.40....$	10,884 54
Excavation, 5.676 cu. yds. glacial drift at 36c.....	2,043 36
Piles delivered, 5,030 lin. ft. at 14c....	704 20
Piles driven, 4,544 lin. ft. at 6½c.....	295 36
Timber in foundation, 9,408 ft. B. M. at $22.00 per M.....	206 98
Portland cement concrete, 1,331.43 cu. yds. at $5 00.....	6,657 15
Transfering piles from the C. T. T. R. R. Co.'s bridge.....	239 26
Total cost of superstructure.....	43,931 12
Construction of embankment for new alignment, including 1,769 cu. yds. glacial drift at 23c.....	662 63
Extra cost Main Channel excavation, 29,742 cu. yds. glacial drift at 10c...	2,497 20
Raising Santa Fe main line tracks, near Twenty-sixth street line crossing.....	1,034 88
Building box culvert under Santa Fe "Y" track.....	19 47
Total cost of bridge.....$	69,176 15
Amount earned to January 1, 1899....	51,693 70
Unfinished work .....$	17,572 45
Unpaid vouchers.....	4,923 63
Balance required to complete.....$	22,496 08

Proportion of work completed, 74.6 per cent.

Belt Railway of Chicago's Bridge, Main Channel, Section "K" (formerly Chicago & Western Indiana Railroad Company.)

This will be a four-track swing bridge of equal arms, and its entire length 340 feet and 2 inches.

Condemnation proceedings were instituted before Judge Gibbons in 1897, but by reason of "the laws delays," the case of the "Chicago and Western Indiana Railroad, et. al. vs. the Sanitary District of Chicago" did not come to trial until the March term of the Circuit Court of Cook County. In this trial the Railroad Company called to its aid a very large number of officers and employes of the several railroads centering in Chicago. In rebuttal the District had, besides its own engineers, but one railroad official, Superintendent Reeves of the Chicago and Alton Railroad, whose testimony was very strong and well sustained in support of the position taken by the District.

After long deliberation Judge Gibbons decided in July (see page 5160), "that under the circumstances a three-track bridge was necessary and should be built by the Sanitary District of Chicago." From this decision both parties to the suit asked an appeal.

The progress of this contention may be traced through the Proceedings on pages 4653, 4758, 4872, 4986, 5160 and 5321. Finally, in the effort to make progress and remove the barrier to the completion of the Channel, the District yielded to the demand of the Railroad Company for a four-track bridge, and although no contract was signed within the year, its terms were practically agreed upon.

On July 29th (page 4989), the Board confirmed the action of the Chief Engineer in accepting "the proposal of W. M. Hughes to prepare certain strain sheets and plans for the sub and superstructure of the then proposed three-track bridge for the Belt Railway at a compensation of $500.00."

On December 31st (page 5388), the Board ordered the advertisement for proposals for the construction of the substructure for a four-track bridge.

Atchison, Topeka & Santa Fe Railway Company's Bridge, Main Channel, Section "G." McArthur Brothers Company and Winston & Co., Contractors for Substructure. The Carnegie Steel Company, Limited, Contractor for Superstructure. Double Track, Length 372 feet 6 1-2 inches. Weight of Iron and Steel in Structure, 1,724,636 Pounds.

The contract for the substructure of this

bridge was awarded in the year 1897 and considerable work was done during that period. The contractors completed this work during the summer of 1898, and a final voucher was issued for the same on June 27th. The Chief Engineer's final certificate for this work was presented to the Board on July 6th (page 4935) and referred to the Committee on Engineering. On July 29th (pages 5008-9), the said final certificate was passed by the Board and the final voucher ordered paid. The work performed under the contract during the year is as follows: Excavation, 2,157 cubic yards; timber in foundation, 5,352 feet, B. M.; piles delivered, 1,955 lineal feet; piles driven, 2,548 lineal feet; Portland cement concrete, 368.33 cubic yards; masonry, 783.13 cubic yards.

As was stated in the last Annual Report, the bids for the superstructure of this bridge were opened by the Board on December 22nd (pages 4430-4) and referred to the Committee on Engineering. On January 5, 1898, (pages 4450-1) the Board awarded this work to the Carnegie Steel Company, Limited, it being the lowest of eleven bidders. The form of said contract appears in the Proceedings of the same date (pages 4452-60). On January 26th (pages 4517-18), the Board adopted the report of the Committee on Finance upon the execution of the contract and approval of onds on same. On September 17th, this department issued a voucher for $30,624.00 to this company, said amount being 60 per cent of the contract price, and issued because of the delivery of the entire iron work at the site of erection (Voucher No. 2565, Engineering Department files).

The miscellaneous work vouchered during the year of 1898 on account of this bridge is as follows:

On January 11th, a voucher for $130.23 was issued to Gahan & Byrne for removing the fence along the Santa Fe deviation and Nickerson Ditch, and moving store and lodging house to permit the grading of the Santa Fe deviation. This work was done in August and November of 1897, under the extra-work clause of Gahan & Byrne's contract for Section "G" with this District, and as per verbal order of the Chief Engineer (Voucher No. 191, Engineering Department files).

Under the same clause and by special order of the Chief Engineer, dated June 29, 1897 (letter book, page 230), these contractors completed the embankments behind the abutments of this bridge, at 28 cents per cubic yard. On June 1, 1898, a voucher for $826.84 was rendered for this work (Voucher No. 2459, Engineering Department files). In order that the above mentioned work could be prosecuted, it was first necessary to drain the Nickerson Ditch and the camp grounds in that vicinity. This was done in the months of August and September, 1897, and vouchered by this Department January 24, 1898 (Voucher No. 2382, Engineering Department files).

Again, under this same extra-work clause, and by verbal order of the Chief Engineer, these contractors furnished the labor and material in repairing and strengthening the roadbed of the changed location of the Santa Fe Railroad. This work was done in June, 1898, and a voucher for $537.35 was issued on this account, on August 24th (Voucher No. 2552, Engineering Department files). On December 16th, a voucher for $286.72 was issued to these same contractors for cutting down the roadbed to its required grade, the provision for shrinkage having proven excessive. This work was done by verbal order of the Chief Engineer and the price fixed for handling the material was 28 cents per cubic yard (Voucher No. 2688, Engineering Department files).

The condition of the contracts on this bridge is as follows:

Masonry, 1,510 37 cu. yds. at $9 40.....	$ 14,197 48
Excavation, 6,716 cu. yds. glacial drift at 35c.....	2,350 60
Piles delivered, 7,955 lineal feet at 14c.	1,113 70
Piles driven, 5,748 lineal feet at 6½c....	373 62
Timber in foundation, 10,704 feet B. M. at $22 per 1,000.....	235 49
Portland cement concrete, 1,418.66 cu. yds. at $5.....	7,093 30
Total cost of superstructure.....	51,040 00
Completing embankment behind bridge abutments, 2,953 cu. yds. glacial drift at 28c.....	826 84
Construction of embankment for new alignment, 75,584 cu. yds. glacial drift at 28c.....	21,163 52
Track laying, ballasting and telegraph wire changes, acct. new alignment..	2,326 23
Repairing and strengthening new road-bed.....	537 35
Cutting down new road-bed, 1,024 cu. yds. glacial drift at 28c.....	286 72
Removing fence, store and lodging house.....	130 23

Draining Nickerson Ditch and camp grounds	$ 159 90
Total cost of bridge	$101,834 98
Amount earned to January 1, 1899	81,418 98
Balance required to complete	$ 20,416 00

Proportion of work completed, 80 per cent.

Atchison, Topeka and Santa Fe Railway Company's Bridge, Desplaines River, Section "F." Double Track, 6 Plate Girder Spans, Each 52 feet 1 inch. Weight of Steel in Structure, 499,830 Pounds.

As was stated on page 4614 of the last Annual Report of this Department, the Santa Fe Company elected to build this bridge and the cost of same is to be borne jointly by the Railroad Company and the Sanitary District. This work was done during the year of 1898 and the cost of same as per itemized statement submitted by the said Company is $38,643.60. The amount chargeable to the District is $19,321.80.

Lyons-Summit Road Bridge, Main Channel, Section "F." McArthur Brothers Company and Winston & Co., Contractors for Substructure. C. L. Strobel, Contractor for Superstructure. Single Roadway, 18 feet Wide. Length, 323 feet 10 inches. Weight of Steel and Iron in Structure, 370,690 Lbs.

This will be a swing bridge of equal arms, the entire length of which will be 323 feet 10 inches. Its roadway will be 18 feet clear, with no sidewalks.

Proposals for this bridge were advertised for in response to the general order of the Board, dated May 11th (page 4809), for the advertisement of all bridges not contracted for. On August 3rd (pages 5017-19), the bids for the substructure work were opened by the Board and referred to the Chief Engineer for tabulation. On August 6th (pages 5033-5), the Board awarded the contract to McArthur Brothers Co. and Winston & Co., who were the lower of two bidders. On August 24th (pages 5093-5117), the Board approved the bond of these contractors. The executed contract appears in the proceedings of that date (pages 5109-17). Three vouchers were issued to these contractors during the year, showing the following items as having been earned for that period: Excavation, 2,266 cubic yards; timber in foundation, 2,500 feet, B. M.; piles delivered, 2,400 lineal feet; piles driven, 1,501 lineal feet; Portland cement concrete, 225 cubic yards; masonry, 300 cubic yards.

On August 3rd (pages 5017-22), bids for the superstructure were received by the Board and referred to the Chief Engineer for tabulation. On August 6th (pages 5033-36), the Board awarded the contract to C. L. Strobel, who was the lowest of ten bidders. On August 31st (pages 5133-44), the Board approved the bond on the executed contract, which appears in the Proceedings of the same date (pages 5135-44).

The miscellaneous work vouchered during the year 1898 on account of this bridge is as follows:

Acting under their supplementary agreement of January 13, 1897, with this District, Gahan & Byrne removed the spoil bank from the permanent Summit road and graded the new permanent Summit road. During the year 1898, two vouchers aggregating $6,639 90, were issued to them on this account (last Voucher No. 2550, Engineering Department files).

On October 19, 1897, a special agreement was entered into between Halvorson, Richards & Co., contractors for Section "E," and Gahan & Byrne, contractors for Section "F," whereby "the said first party authorizes and permits the said second party to excavate all the glacial drift from the east line of its Section "E" at the Summit Roadway crossing to a point on said Section where said first party has already excavated to bed rock, a distance of about one hundred (100) feet, more or less."

In the contract between Halvorson, Richards & Co. and the Sanitary District, it is required that the contractor shall keep the Summit Road clear from interference, and grade said road free of cost to the Sanitary District. By the special agreement between the Contractors for Section "E" and "F" mentioned above, the permanent Summit Road was brought within the jurisdiction of Section "F," but the responsibility for keeping said road clear and grading same, still rested upon Halvorson, Richards & Co. In December of 1897, Gahan & Byrne performed this work and presented a bill for $2,258.64 to Halvorson, Richards & Co. for payment. These contractors refused to pay the said bill, and the Chief Engineer issued a voucher

to Gahan & Byrne for the said amount and had it charged against the reserved percentage account on Section "E" (letter book dated January 19, 1898, page 209, Voucher No. 2386, Engineering Department files).

The condition of contracts on this bridge is as follows:

Masonry, 1,184 cu. yds. at $10.50	$11 907 00
Excavation, 2,370 cu. yds. glacial drift at 40c	948 00
Piles delivered, 4,000 lin. ft. at 15c	600 00
Piles driven, 4,000 lin. ft. at 15c	600 00
Sheet piling, 1,000 ft., B. M. at $30 per 1,000	30 00
Timber in foundation, 5,300 ft., B. M. at $25 per 1,000	132 50
Natural cement concrete, 296 cu. yds. at $3 50	1,036 00
Portland cement concrete, 554 cu. yds. at $6	3,324 00
Total cost of superstructure	12,620 00
Work account Summit Road	6,639 90
Total cost of bridge	$37,837 40
Amount earned to January 1, 1899	$12,693 95
Unfinished work	25,143 45
Reserved perceniage,	756 76
Unpaid vouchers	1,237 16
Balance required to complete	$27,137 37

Proportion of work completed, 33.5 per cent.

Lyons-Summit Road Bridge, Desplaines River, Section "E." Halvorson, Richards & Co., Contractors for Substructure. Massillon Bridge Company, Contractor for Superstructure. Single Roadway, 18 feet Wide. One 200-foot Span. Weight of Steel and Iron in Structure, 114,000 Pounds.

Acting under the extra work clause of their contract for Section "F" with this District, the Chief Engineer on June 9th (letter book page 51) ordered Halvorson, Richards & Co. to construct the piers and abutments for the bridge, fixing the prices at the following rates: Foundation excavation, 60 cents per cubic yard; concrete, $6.25 per cubic yard; Bedford stone pedestals, $12.00 per cubic yard; iron on piers, 10 cents per pound; timber for coffer dams, $16.00 per thousand feet, B. M. The order was accepted by the contractors on June 13th. On August 27th, by direction of the Chief Engineer, Assistant Engineer, Mr. W. T. Keating, ordered these contractors to fill with concrete between the pedestal blocks on all of the piers for a width of eighteen inches aad a depth of fifteen inches, at $9.00 per cubic yard. This order was accepted by the contractors on August 31st. This work was completed during the year and a final voucher was issued by this Department on November 1st and passed by the Board on November 16th (Voucher No. 2625, Engineering Department files).

On December 29th, 1897 (pages 4442-3), the Board received bids for the superstructure of this bridge and referred them to the Chief Engineer for tabulation. On January 5th (pages 4461-5) the Board awarded the contract to the Massillon Bridge Company, which was the lowest of seven bidders, and the President and Clerk of the District were authorized to execute the contract and the Committee on Finance to approve the bond on same. The form of contract appears on pages 4462-5 of the Proceedings of the same date.

On August 10th (pages 5069-70), the Board authorized the Chief Engineer to accept the several proposals of the Massillon Bridge Company for moving the old structure to the site of the new bridge and improving same. The bids for this work were as follows: For removal of existing structure and preparing crossing for travel, $500.00; erection of the spans upon newly prepared masonry and widening present roadway from sixteen to eighteen feet by putting in new steel floor beams and necessary connections, and painting all steel work two coats, $500.00; for furnishing all necessary new oak lumber and putting in position with joists, wheel and hub guards, $500.00; a total of $1,500.00.

During the year 1898, this Company completed all of the work under its contract and on August 31st a voucher for $3,500.00 was issued to it for furnishing and erecting the new superstructure. The Chief Engineer submitted the said voucher to the Board on September 14th (page 5158), which was ordered paid on that date (Voucher No. 2545, Engineering Department files.) On December 15th, a voucher for $1,700.00 ($200.00 of which was for extra work done by verbal orders of the Chief Engineer) was issued by this department and a final certificate for the entire work was submitted by the Chief Engineer to the Board on December 21st (page 5350) and referred to the Committee on Engineering. On December 28th (pages 5374-6), the Board passed upon said final certificate and ordered the final voucher paid.

The miscellaneous work vouchered during

the year 1898 on account of this bridge, is as follows:

During the latter part of the year, the approaches to this bridge were in a bad condition, and the Chicago Crushed Stone Company was ordered to deliver and spread crushed stone wherever necessary; 323.36 cubic yards of this material were used, and the price paid for same in place was 90 cents per cubic yard. On December 15th, a voucher for $291.02 was issued to this company on this account (Voucher No. 2717, Engineering Department files.)

Acting under the extra-work clause of their contract for Section "E" with this District, the Chief Engineer, on October 3rd (letter book, page 11) ordered Halvorson, Richards & Co. to grade the approaches to this bridge, fixing the price for excavation from the old roadbed down to the natural surface at 40 cents per cubic yard; for all other excavation, at 27 cents per cubic yard, and for removing old piers from the channel, at 75 cents per cubic yard. During the year 1898, these contractors earned $1,183.61 on this account (last Voucher No. 2719, Engineering Department files.)

The condition of contracts for this bridge is as follows:

Excavation, 1414 cu yds. glacial drift at 60c.....$	848 40
Bedford stone pedestals, 8.21 cu. yds. at $12.00....	98 52
Portland cement concrete, 779.25 cu. yds at $6.25..... ...	4,870 31
Portland cement concrete between pedestals, 5.84 cu. yds. at $9.00.....	52 56
Iron on piers, 2,818½ lbs at 10c.....	281 85
Cutting and hauling additional piece of stone coping.....	7 50
Total cost of superstructure.....	5,200 00
Lowering truss.....	145 00
Grading approaches to bridge, 3,643 cu. yds. glacial drift at 27c.....	983 61
Removing old roadbed, 500 cu. yds. glacial drift at 40c.....	200 00
Improving Lyons-Summit Road, 323.36 cu. yds. crushed stone at 90c.....	291 02
Total cost of bridge.....$	12,978 77
Amount earned to January 1, 1899....	12,978 77
Reserved percentage.....$	147 95
Unpaid vouchers.....	631 87
Balance required to complete....$	779 82

Proportion of work completed, 100 per cent.

Chicago Terminal Transfer Railroad Company's Bridge, Main Channel, Section "E." McArthur Brothers Company and Winston & Co., Contractors for Substructure. Wisconsin Bridge and Iron Company, Contractor for Superstructure. Double Track. Length, 316 feet 7 inches. Weight of Steel and Iron in Structure, 1,051,924 Pounds.

The contracts for both the sub and superstructure of this bridge were entered into in 1897. The contractors for the substructure began operations in the early part of 1898, and a final voucher was issued to them on October 6th (Voucher No. 2607, Engineering Department files). On October 12th (page 5191) the Chief Engineer presented the final certificate for this work to the Board, which was referred to the Committee on Engineering. On October 26th (pages 5215-16) the Board passed upon the said final certificate and ordered the final voucher paid.

On August 8th a voucher for $17,326.20 was issued to the contractor for the superstructure of this bridge, the said amount being 60 per cent of the total contract price and paid to this company for having delivered all of the iron work at the site of erection (Voucher No. 2507, Engineering Department files). This company completed its contract on October 15th, and on the 21st of the same month a final voucher was issued in its favor. On October 20th (page 5200) the Chief Engineer presented the final certificate for this work to the Board, which was referred to the Committee on Engineering. On October 26th (pages 5214-15) the said final certificate was passed upon by the Board and the final voucher ordered paid.

Acting under the extra work clause of their contract with this District, the Chief Engineer gave verbal orders to Halvorson, Richards & Co. to grade the approaches to this bridge, fixing the price for handling the material at 27 cents per cubic yard. During the year these contractors earned $322.38 on this account (Voucher No. 2718, Engineering Department files).

The condition of contracts for this bridge is as follows:

Masonry, 1,231.39 cu. yds. at $9 40.....$	11,575 07
Excavation, 3,554.1 cu. yds. glacial drift at 46c.....	1,634 89
Piles delivered, 1,650 lineal feet at 14c.	231 00
Piles driven, 1,166.5 lineal feet at 10c...	116 65
Sheet piling, 2,532 feet, B. M., at $31 per 1,000.....	78 49

Timber in foundation, 3,672 feet, B. M., at $22 per 1,000	$ 80 78
Natural cement concrete, 238.27 cu. yds. at $3.50	833 95
Portland cement concrete, 693.13 cu. yds. at $5	3,465 65
Total cost of superstructure	28,930 95
Grading approaches to bridge	322 38
Total cost of bridge	$ 47,269 81
Amount earned to January 1, 1899	47,269 81
Unpaid vouchers and balance required to complete	$ 322 38

Proportion of work completed, 100 per cent.

Chicago Terminal Transfer Railroad Company's Bridge, Desplaines River, Section "E." Heldmaier & Neu, Contractors for Substructure. Wisconsin Bridge and Iron Company, Contractor for Superstructure. Double Track. One Span, 105 feet, Center to Center of End Pins.

Proposals for the sub and superstructure for this bridge were asked for under the order of the Board on May 11th (page 4809) for the advertisement for bids for all bridges not contracted for at that time. On August 3rd (pages 5017-19) bids were opened for the substructure work for this bridge and referred to the Chief Engineer for tabulation. On August 6th (pages 5033-7) the Board awarded the contract to Heldmaier & Neu, who were the lower of two bidders. On August 24th (page 5119) the Board approved the bond on this contract. The executed contract is published in the Proceedings of the same date (pages 5119-27).

On November 3rd (page 5225) these contractors presented a communication to the Board stating that, owing to the delay of the completion of their contract for this bridge, which was due to the lack of right of way, they had sustained money losses and that they held the Sanitary District responsible for said losses. The communication was referred to the Committee on Engineering on that date. On December 31st (page 5354) the Board ordered the said communication placed on file.

During the year, these Contractors performed 600 cubic yards of foundation excavation and a voucher for $341.25 was issued to them on this account on December 16th (Voucher No. 2582, Engineering Department files).

On August 3rd (pages 5017-23), bids for the superstructure of this bridge were presented to the Board and referred to the Chief Engineer for tabulation. On August 6th (pages 5033-7), the Board awarded the contract to the Wisconsin Bridge and Iron Company, which was the lowest of nine bidders. On August 24th (pages 5092-3), the Board approved the bond on this contract. The form of said contract appears in the Proceedings of that date (pages 5093-5101).

The condition of contracts for this bridge is as follows:

Removal of masonry, 143 cu. yds. at $2.25	$ 321 75
Masonry, 411 cu. yds. at $7.60	3,123 60
Excavation, 972 cu. yds. glacial drift at 65c	631 80
Piles delivered, 1,000 lin. ft. at 25c.	250 00
Piles driven, 1,000 lin. ft. at 30c	300 00
Sheet piling, 3,000 ft. B. M. at $25 per 1,000	75 00
Portland cement concrete, 241 cu. yds. at $8.50	2,048 50
Raising three spans	750 00
Total cost of superstructure	7,318 00
Total cost of bridge	$14,818 65
Amount earned to January 1, 1899	390 00
Unfinished work	$14,428 65
Reserved per centage	48 75
Balance required to complete	$14,477 40

Proportion of work completed, 2.6 per cent.

Willow Springs Road Bridge, Main Channel, Section 1. Sackley & Peterson, Contractors for Substructure. C. L. Stuebel, Contractor for Superstructure. Single Roadway, 20 feet Wide. Length, 306 feet 1 1-4 inches. Weight of Steel and Iron in Structure, 339,294 Pounds. Counter Weight, 209,040 Pounds.

The proposals for both the sub and superstructure for this bridge were asked for under the general order of the Board on May 11th (page 4809) for the advertisement for bids for all bridges not yet contracted for. On August 3rd (pages 5017-20), bids for the substructure were submitted to the Board and referred to the Chief Engineer for tabulation. On August 6th (pages 5034-7), the Board awarded the contract to Sackley & Peterson, who were the lowest of three bidders. On August 24th (pages 5092-3), the Board approved the bond of this contract. The executed contract which bears date of August 19, 1899, appears in the Proceedings of Au-

gust 24th (page 5118). These contractors completed the substructure during the year 1898 and a final voucher was rendered to them on this account on December 31st, (Voucher No. 2707, Engineering Department files).

The bids for the superstructure of this bridge were submitted to the Board on August 3rd (pages 5017-23) and referred to the Committee on Engineering. On August 6th (pages 5033-7) the Board awarded the contract to C. L. Strobel, who was the lowest of ten bidders. On August 31st (pages 5133-4), the Board approved the bond of this contract. The executed contract, which bears date of August 24, 1898, appears in the Proceedings for August 31st (pages 5134-44).

The condition of contracts for this bridge is as follows:

Masonry, 419.2 cu. yds. at $11.50	$ 4,820 80
Excavation, 1233 cu. yds. glacial drift at $1.00	1,233 00
Excavation, 851 cu. yds. glacial drift at 40c	340 40
Piles delivered and driven, 400 lin. ft. at $1.00	400 00
Portland cement concrete, 179.4 cu. yds. at $5.00	897 00
Total cost of superstructure	14,900 00
Changing road at Willow Springs	114 71
Changing alignment of temporary bridge	112 61
Total cost of bridge	$22,818 52
Amount earned to January 1, 1899	7,918 52
Unfinished work	$14,900 00
Unpaid vouchers	1,881 02
Balance required to complete	$16,781 02

Proportion of work completed, 34.7 per cent.

Atchison, Topeka & Santa Fe Railway Company's Bridge, Main Channel. Section 8. McArthur Brothers Company and Winston & Co., Contractors for Substructure. Carnegie Steel Company, Limited, Contractor for Superstructure. Double Track. Length 398 feet 6 inches. Weight of Steel and Iron in Structure, 2,315,656 Pounds. Counter Weight, 858,645 Pounds.

On May 18th (pages 4813-15), bids for the substructure of this bridge were submitted to the Board and referred to the Chief Engineer for tabulation. On May 25th (pages 4830-2), the Board awarded the contract to McArthur Brothers Company and Winston & Co., who were the lowest of six bidders. On June 16th (pages 4881-2), the Board approved the bond on this contract. The executed contract appears in the Proceedings of June 16th (pages 4882-9). The contractors for this work completed their contract during the year 1898 and a final voucher was issued to them on October 12th (Voucher No. 2608, Engineering Department files). On October 26th (page 5214), the Chief Engineer submitted the final certificate for this work to the Board, which was referred to the Committee on Engineering. On November 3rd (pages 5221-2), the Board passed upon the final certificate and ordered the final voucher paid.

On May 18th (pages 4813-15), bids were received for the superstructure of this bridge and referred to the Committee on Engineering. On May 25th (pages 4830-32), the Board awarded the contract to the Carnegie Steel Company, Limited, which was the lowest of seven bidders. On June 8th (pages 4852-3), the Board approved the bond on the contract. The executed contract, which bears date of May 31, 1898, appears in the Proceedings for June 8th (pages 4853-62).

In the general contract with the "Santa Fe System," the Sanitary District agreed to change the location of tracks of this railroad at Lemont and on May 18th (page 4813), the Board ordered the advertisement for proposals for this work, which involved the building of a double track embankment, together with the necessary filling for side tracks and highway and bridge approaches. On July 20th (pages 4978-9), the bids for the work were submitted to the Board and referred to the Chief Engineer for tabulation. The bids included the work of excavating the balance of rock remaining in the Main Channel at the present Santa Fe crossing, and the lowest bid was determined by the total figures submitted on this double proposition. On July 29th (pages 5009-10) the Board awarded the contract to Mason, Hoge, King & Co., who were the lowest of five bidders. On August 10th (page 5059) the Board approved the bond on this contract. The executed contract appears in the Proceedings for August 10th (pages 5060-7). The amount earned during the year 1898 by these contractors on this account is $15,962.70 (last Voucher No. 2711, Engineering Department files).

Acting under its general agreement with

this District, the Santa Fe Company incurred sundry expenses in connection with its system at Lemont and bills amounting to $381.85 were vouchered by the District to the said company during 1898 (last Voucher No. 2709, Engineering Department files).

The condition of the contracts for this bridge is as follows:

Masonry, 447.41 cu. yds. at $12.00	$ 5,368 92
Excavation, 1,020 cu. yds. solid rock at 50c	510 00
Portland cement concrete, 369.66 cu. yds. at $5.50	2,033 13
Total cost of superstructure	76,185 00
Construction of embankment for new alignment, 126,900 cu. yds. glacial drift at 18c	22,842 00
Excavation front of north abutment, 1,200 cu. yds. glacial drift at 22c	264 00
Inspecting track and watching material	381 85
Total cost account bridge	$107,584 90
Amount earned to January 1, 1899	24,256 60
Unfinished work	$ 83,328 30
Reserved percentage	1,995 34
Unpaid vouchers	2,238 25
Balance required to complete	$ 87,561 89

Proportion of work completed, 22.5 per cent.

Atchison, Topeka & Santa Fe Railway Company's Bridge, Desplaines River, Section 8. Penn Bridge Company, Contractor for Superstructure. Double Track. Twelve Plate Girder Spans 60 feet Each. Weight of Steel and Iron in Structure, 1,117,765 Pounds.

In accordance with the general contract between the "Santa Fe System" and the Sanitary District, the expense incurred in the construction of this bridge is to be borne jointly by these two parties. The A. T. & S. F. Ry. Co. elected to build the substructure, which was completed during the year 1898. The statement of its cost was not submitted to this Department during that period and the estimated amount as worked out by the District and which is shown in the schedule below is still used as a basis for this report.

The Sanitary District elected to construct the superstructure of this bridge, and on May 18th (pages 4813-16) bids for same were received by the Board and referred to the Chief Engineer for tabulation. On May 25th (pages 4830-3) the Board awarded the contract to the Penn Bridge Company, which was the lowest of eleven bidders. On June 16th (pages 4873-4) the Board approved the bond on this contract. The executed contract, which bears date of May 31, 1898, appears in the Proceedings for June 16th (pages 4874-81). This company completed its contract during the year 1898 and a final estimate was issued by this Department to it on December 28th (Voucher No. 2708, Engineering Department files).

On August 3rd (page 5017) a communication was presented to the Board from the Penn Bridge Company, "asking the assent of the Board to their assignment to the Carnegie Steel Company of payments which are, or may become, due to said Penn Bridge Company on their contract with the District." It was referred to the Joint Committee on Engineering and Judiciary. On December 21st (pages 5354-5) the Board placed the said communication on file. On December 7th (page 5307) this same Company presented to the Board another communication in which was claimed an extension of time for certain alleged delay on its contract. It was referred to the Committee on Engineering on that date.

The approximate cost to the District of this bridge is as follows:

Proportionate cost of substructure (one-half of $17,000.00)	$ 8,500 00
Proportionate cost of superstructure (one-half of $26,924 06)	13,462 03
Total	$21,962 03

The condition of contracts on above basis is as follows:

Amount vouchered to January 1, 1899	$ 26,924 06
Total proportionate cost of bridge	21,962 03
Credit to Sanitary District	$ 4,962 03
Reserved percentage	$ 350 00
Unpaid vouchers	10,440 60
	$ 10,790 06
Less credit to Sanitary District	4,962 03
Balance required to complete	$ 5,828 03

Lemont Road (Stephens Street) Bridge, Main Channel, Section 8. Sackley & Peterson, Contractors for Substructure. Carnegie Steel Company, Limited, Contractor for Superstructure. Single Roadway, 20 feet Wide. Length, 306 feet 1 1-4 inches. Weight of Iron and Steel in Structure, 339,705 Pounds. Counter Weight, 207,300 Pounds.

The proposals for the sub and superstruc-

ture of this bridge were advertised under the general order of the Board, dated May 11th (page 4809). On August 3rd (pages 5017-20) the bids were submitted to the Board and referred to the Chief Engineer for tabulation. On August 6th (pages 5033-7) the Board awarded the contract to Sackley & Peterson, who were the lowest of three bidders. On August 24th (pages 5092-3) the Board approved the bond on said contract. The executed contract which bears date of August 19th, 1898, appears in the Proceedings for August 24th (pages 5117-18).

During the year 1898 these contractors completed all of this contract with the exception of that portion of work connected with the Stephens Street Improvement covered in Clause 55 of said contract. The last voucher issued to them on account of this bridge bears date of December 31st (Voucher No. 2710, Engineering Department files).

On August 3rd (pages 5017-24) the bids for the superstructure of this bridge were presented to the Board and referred to the Chief Engineer for tabulation. On August 6th (pages 5033-7) the Board awarded the contract to C. L. Strobel at his bid of $14,990,00, which was the lowest of ten bids received. On August 31st (pages 5133-4) the Board approved the bond on said contract. The executed contract, which bears date of August 24, 1898, appears in the Proceedings for August 31st (page 5145).

Acting under the extra work clause of their contract with this District, the Chief Engineer gave verbal orders to Mason, Hoge, King & Co. to make some slight changes in the Lemont Road near the site of this bridge and fixed the compensation for excavation at 22 cents per cubic yard. The total cost of said work was $193.89, and a voucher for this amount was issued to them by this Department on December 6th (Voucher No. 2677, Engineering Department files).

The condition of contracts on this bridge is as follows:

Masonry, 281 cu. yds. at $11.85	$ 3,329 85
Excavation, 1,650 cu. yds. glacial drift at $1	1,650 00
Portland cement concrete, 179 cu. yds. at $5	895 00
Work account Lemont Road, including 356 cu. yds. glacial drift at 22c	193 89
Total cost of superstructure	14,990 00
Total cost of bridge	$21,058 74
Amount earned to January 1, 1899	5,693 39
Unfinished work	$15,365 35
Reserved percentage	$ 687 44
Unpaid vouchers	1,981 43
Balance required to complete	$18,034 22

Proportion of work completed, 27 per cent.

Lemont Road Bridge, Desplaines River, Section 8. E. D. Smith & Co., Contractors.

The substructure for this bridge consists of eleven piers and the abutments, and the superstructure consists of ten wooden spans, each 50 feet in length, and an 18 feet roadway.

This bridge was formerly included in the estimate of Section 8, but owing to the fact that it is a permanent structure, it is now transferred to the bridge schedule and treated under the regular head of Bridges. The contract for this bridge was awarded on September 27, 1893 (pages 1468-70) to E. D. Smith & Co., who acted as agents of the Sanitary District and were given ten (10) per cent of the actual cost of the structure as compensation for superintendence, use of tools, etc. The total cost of said structure is $22,329.89 (Voucher No. 24, Engineering Department files).

Western Stone Company's Bridge, Desplaines River, Section 10. E. D. Smith & Co., Contractors.

This structure is a single track trestle consisting of 32 bents, each 16 feet in length.

This bridge was formerly included in the estimate of Section 10, and for the same reason noted above in the last mentioned bridge it is now transferred under the regular head of Bridges.

On August 16, 1893 (page 1402) the Board ordered the Chief Engineer to direct E. D. Smith & Co., contractors for Section 10, to perform this work under the extra work clause of their contract with this District. On August 17, 1893 (letter book pages 389-91), the Chief Engineer directed these contractors to do the work and were given fifteen (15) per cent of the actual cost of the structure as compensation for superintendence, use of tools, etc. The total cost of said structure is $15,983.63 (Voucher No. 107, Engineering Department files).

Romeo Road Bridge, Main Channel, Section 12; Heldmaier & Neu, Contractors for Substructure; C. L. Strobel, Contractor for Superstructure. Single Roadway, 20 Feet Wide; Length, 306 Feet, 1 1-4 Inches; Weight of Iron and Steel in Structure, 339,505 Pounds; Counterweight, 208,100 Pounds.

Proposals for the sub and superstructure of this bridge were advertised under the general order of the Board, dated May 11th (page 4809). On August 3rd (pages 5017-21), the bids for the substructure were submitted to the Board and referred to the Chief Engineer for tabulation. On August 6th (pages 5033-7), the Board awarded the contract to Heldmaier & Neu, who were the lowest of three bidders. On August 24th (page 5119), the Board approved the bond on this contract. The contract, which bears date of August 24, 1898, appears in the Proceedings of August 24th (pages 5127-8). No vouchers were issued to these contractors during the year.

On November 3rd (page 5225), a communication from Heldmaier & Neu was presented to the Board, in which they served notice that, owing to sundry delays imposed upon them in fulfilling their contract for this substructure, they were put to extra expense, and held the Sanitary District liable for same. It was referred to the Committee on Engineering on that date, and on December 21st (page 5354), the Board ordered the same to be placed on file.

On August 3rd (pages 5017-24), the bids for the superstructure for this bridge were submitted to the Board and referred to the Chief Engineer for tabulation. On August 6th (pages 5033-7), the Board awarded the contract to C. L. Strobel, at his bid of $14,990, which was the lowest of ten bids received. On August 31st (pages 5133-4), the Board approved the bond on this contract. The executed contract, which bears date of August 24, 1898, appears in the Proceedings for August 31st (pages 5144-5).

The cost of this bridge is as follows;

Substructure complete	$ 9,659 75
Superstructure complete	14,990 00
Total	$ 24,649 75

Lockport Road Bridge, Desplaines River Channel, Section 16. Griffiths & McDermott, Contractors for Substructure. Wisconsin Bridge and Iron Company, Contractor for Superstructure.

This will be a fixed structure and consist of three 200-feet through spans, an 18-feet roadway and no sidewalks.

The proposals for the sub and superstructure of this bridge were advertised under the general order of the Board, dated August 3rd (page 5017). On October 5th (pages 5181-4), the Board received bids for both parts of this bridge and referred them to the Chief Engineer for tabulation. On October 12th (pages 5195-7), the Board awarded the substructure contract to Griffiths & McDermott, who were the lowest of four bidders. On November 16th (pages 5237-8), the Board approved the bond on this contract. The executed contract, which bears date of October 28, 1898, appears in the Proceedings for November 16th (pages 5239-44).

On October 12th (pages 5195-7), the Board awarded the superstructure contract to the Wisconsin Bridge & Iron Company at its bid of $10,954.00, which was the lowest of eight bids received. On November 23rd (page 5264), the Board approved the bond on this contract. The executed contract, which bears date of October 29, 1898, appears in the Proceedings of November 23rd (pages 5264-72).

No voucher was issued for any portion of this structure during 1898.

The cost of this bridge is as follows:

Substructure complete	$ 3,523 00
Superstructure complete	10,954 00
Total	$14,477 00

Wire Mills Road Bridge, Desplaines River Channel, Section 16. Hayes Brothers, Contractors for Substructure. Wisconsin Bridge and Iron Company, Contractor for Superstructure.

This will be a fixed structure and consist of two 200 feet and one 100 feet through spans, an 18-feet roadway and no sidewalks.

The proposals for the sub and superstruc-

ture of this bridge were advertised under the general order of the Board dated August 3rd (page 5017). On October 5th (pages 5181-3) the Board received bids for both parts of this bridge and referred them to the Chief Engineer for tabulation. On October 12th (pages 5195-7) the Board awarded the substructure contract to Hayes Brothers, who were the lowest of four bidders. On November 16th (pages 5237-8) the Board approved the bond on said contract. The executed contract, which bears date of October 31, 1898, appears in the Proceedings for November 16th (pages 5245-6).

On October 12th (pages 5195-7) the Board awarded the superstructure contract to the Wisconsin Bridge and Iron Company at its bid of $8,945.00, which was the lowest of eight bids received. On November 23rd (page 5264) the Board approved the bond on this contract. The executed contract, which bears date of October 29, 1898, appears in the Proceedings for November 23rd (pages 5272-3).

No voucher was issued for any portion of this structure during 1898.

The cost of this bridge is as follows:

Substructure complete	$ 5,816 30
Superstructure complete	8,945 00
Total	$14,761 30

Elgin, Joliet & Eastern Railway Company's Bridge, Desplaines River Channel, Between Sections 16 and 17. Benezette Williams, Contractor for Substructure. Julius G. Wagner, Contractor for Superstructure. Single Track. Total Length 665 Feet 9 Inches.

On January 19th (page 4504), the Board approved the new bond of the contractor for the superstructure of this bridge, which was for $1,000.00 and in lieu of a former bond for $12,000.00. On December 14th (page 5345), this same company transmitted a communication to the Board requesting a release of the bond on its contract, which was referred to the Committee on Judiciary. The matter was not reported on during 1898.

On January 19th (page 4504), the Board released the $5,000.00 bond of the contractor on the substructure of this bridge and requested that he file a new one for $500.00.

The final voucher for the substructure of this bridge was rendered January 16, 1897. The final voucher for the superstructure was rendered June 3, 1897. The total cost of the bridge is $41,984.62 (page 4613).

Cass Street Bridge, Desplaines River Channel, Section 18.

This will be a fixed structure to consist of one 213 feet and 7 inches through span and one 87 feet and 6 inches through plate girder, a roadway 32 feet wide in the clear and two 8-feet sidewalks.

Nothing was done in 1898 toward letting this work.

Jefferson Street Bridge, Desplaines River Channel, Section 18.

This will be a fixed structure and consist of two 113 feet and 10¾ inches through spans, a roadway 40 feet in the clear and two 12 feet sidewalks. Nothing was done in 1898 towards letting this work.

Chicago, Rock Island & Pacific Railroad Company's Bridge, Desplaines River Channel, Section 18.

This will be a fixed structure consisting o two skew double track deck plate girder spans, of a total approximate length of 156 feet. Nothing was done in 1898 towards letting this work.

RAILROADS.

All the facts for the year 1898 pertaining to the relations between the Sanitary District and the several Railroad Companies in connection with the Chicago River Improvement work, other than bridges, are enumerated under the head of "Chicago River" in this report. The companies with which the District had business relations at that point are the Pennsylvania Company, the Chicago & Alton Railroad Company, the Chicago & Northern Pacific Railroad Company and the Chicago, Rock Island and Pacific Railway Company.

Chicago Terminal Transfer Railroad Company.

As was stated under the head of "Taylor Street and Chicago Terminal Transfer Railroad Company's Bridges, Chicago River," (page 5716) the Board adopted the proposition of removing the C. T. T. R. R. Co.'s Bridge from its present site and building a new bridge of the bascule type in its stead.

The Board also authorized and directed its President and Clerk to enter into a contract with this company upon the following terms: The Sanitary District shall bear the entire cost of the new bridge; it shall also defray four-fifths (4-5) of the cost of removing the present bridge to a temporary location, and all miscellaneous expenses incident thereto; but the total portion to be borne by the District shall not exceed $60,000. On December 6th (pages 5291-2) a form of contract with this company was presented to the Board and the President and Clerk were authorized to execute same. The executed contract appears in the Proceedings for December 28th (pages 5359-61).

The contract with the C. T. T. R. R. Co. for crossing its right of way on contract Section "E," which was executed on September 3, 1897, appears in the Proceedings for December 31st (pages 5381-5). The supplemental contract with the receiver of the Chicago and Northern Pacific Railroad Company (now styled the Chicago Terminal Transfer Railroad Company) for a movable bridge at the Pan Handle crossing of the Main Channel at 31st street and Campbell avenue, and which bears date of execution of June 1, 1897, also appears in the Proceedings for December 31st (page 5381).

The acceptance by this company of the Scherzer, the Bates and the Strobel designs for the preposed Pan Handle bridge appears in the Proceedings for March 9th (page 4586).

The following amounts have been vouchered by the Engineering Department to this company during the year 1898:

Account Pan Handle temporary bridge (sundries)	$ 936 91
Account C., M. & N. R. R. Co's Kedzie Avenue Viaduct (switching charges)	30 00
Account C. T. T. R. R. Co's temporary bridge, Main Channel, Section "E" (sundries)	1,378 37
Account C. T. T. R. R. Co's temporary bridge, Desplaines River, Section "E" (constructing bridge)	3,353 40
Total	$ 5,698 68

Pittsburgh, Cincinnati, Chicago & St. Louis Railway Company.

The acceptance by this company of the Scherzer, the Bates and the Strobel designs for the Pan Handle Bridge appears in the Proceedings for March 9th (pages 4588-9).

During 1898, this Department vouchered to this company $548.47 for miscellaneous expenses incurred in connection with its temporary crossing of the Main Channel on Section "O."

Chicago Junction Railway Company (Formerly Union Stock Yards and Transit Company.)

The acceptance by this Company of the Scherzer, the Bates and the Strobel designs for the Pan Handle Bridge appears in the Proceedings for March 9th (page 4587).

In the latter part of 1898 this company complained to the Chief Engineer that its temporary tracks, constructed by the District, had fallen short of the needs of its business and on October 12th (pages 5194-5) the Board authorized the construction of an additional temporary track at a cost not to exceed $4,000.00.

During 1898 this Department vouchered $998.51 to the Chicago Junction Railway Company for miscellaneous expenses incurred in connection with its temporary bridge at the Pan Handle crossing.

Illinois Central Railroad Company (Lessee of the Chicago, Madison and Northern Railroad Company.)

No mention of this Railroad Company is made in the Proceedings of the District for the year 1898 other than the passage of vouchers submitted to the Board by this Department. The bills submitted by this company and vouchered during that period are as follows:

Account Interlocking System, etc., in connection with the Pan Handle bridge	$ 97 94
Account C., M. & N. R R. Co.'s Kedzie Avenue viaduct (freight on girders)	50 00
Account C., M. & N. R. R. Co.'s bridge, Main Channel, (ballasting new alignment)	13,434 94
Total	$13,592 88

Atchison, Topeka & Santa Fe Railway Company, Chicago, Santa Fe & California Railway Company and "Santa Fe System."

On March 23rd (pages 4691-4) a form of agreement between the Chicago, Santa Fe & California Railway Company and the Sanitary District, in reference to the exchange of cer-

tain lands, was presented to the Board and the President and Clerk of the District were authorized to execute same. On April 13th (pages 4742-3) the Board voted that, owing to the fact that the original conditions of the above mentioned form were subsequently changed, the order of March 23rd be annulled. On November 23rd (pages 5273-4), a new form of agreement on this matter was presented to the Board and authority was given for the execution of same.

On October 12th (pages 5193-4), a supplemental agreement between the "Santa Fe System" and the Sanitary District, containing modifications of the contract entered into on November 17, 1897 (pages 4831-2), in reference to swing bridges, was submitted to the Board, and authority was given for the execution of same.

The following amounts were vouchered to this Company during 1898:

Changing line and interlocking plant, account A., T. & S. F. Temporary Bridge, Section "N".....	$ 948 25
Raising tracks Santa Fe main line, near Twenty-sixth Street crossing, account A., T. & S. F. Ry. Co.'s Permanent Bridge, Section "N".....	1,034 88
Raising Santa Fe tracks near Kedzie Avenue, account C., M. & N. Permanent Bridge, Section "N".....	8,782 43
Miscellaneous expenses at Lemont, account A., T. & S. F. Permanent Bridge, Main Channel, Section 8.....	381 85
Changing telegraph lines, account excavation on Section 17.....	302 21
Total.....	$11,449 62

PUBLIC CORPORATIONS.

City of Chicago.

On February 2nd (page 4537) the Board received a communication from the Hon. Carter H. Harrison, Mayor of Chicago, transmitting a copy of an ordinance passed by the City Council January 31, 1898, "with reference to the Lawrence Avenue and 39th Street conduits and pumping stations to be operated in connection therewith." The communication and the ordinance (which appears in the Proceedings of the same date, pages 4537-8) were referred to the Committee on Judiciary and Engineering. On February 4th (pages 4539-41) the Board passed an ordinance on this same matter "wherein it is ordained that the District will permanently maintain and operate said pumping stations and make all improvements and repairs in increase of capacity, if any, thereafter required at the expense of said Sanitary District."

On November 3rd (page 5225) the Board received a communication from Mr. L. E. McGann, Commissioner of Public Works of the City of Chicago, in reference to the laying of a 36-inch water main under the Main Channel at Kedzie Avenue. The said communication was referred to the Committee on Engineering. On November 30th (pages 5284-5) the Board granted this request in the form of an ordinance, which appears in the Proceedings on page 5285.

City of Joliet.

On May 4th (pages 4799-4800) President Boldenweck presented a report to the Board on a communication received from the City Clerk of Joliet rejecting the proposition made by the District to the City of Joliet in reference to the construction of the Cass and Jefferson Street Bridges in that city. The said report was referred to the Committee on Engineering on that date and on May 11th (pages 4807-8) the Board ordered it placed on file.

On August 10th (pages 5070-5), the Board accepted the conditions of an ordinance passed by the Common Council of the City of Joliet on July 8, 1898, in reference to the construction of the Main Channel through the City of Joliet and the removal and reconstruction of the Cass and Jefferson Street Bridges. The said ordinance appears on pages 5071-5.

Commissioners of the Illinois & Michigan Canal.

The history of the dealings of this District with the Commissioners of the Illinois & Michigan Canal as a part of the annals of 1898 is sufficiently voluminous to make volumes of itself. The contract between this District and the said Commissioners is found in the Proceedings for March 11th (page 4654) and the report on same on March 16th (page 4661). Other references in the Proceedings are found on pages 4943, 4963, 4979, 5010, 5091, 5151, 5160, 5328 and 5345. The fullest history of this case is found in the "Abstract of Record" prepared by Attorneys Haley & O'Donnell and John S. Miller for appeal from the Circuit Court of Will County to the Supreme Court of Illinois, "Sanitary

District of Chicago, appellant, vs. Canal Commissioners, appellee."

This abstract of the evidence presented in the trial of the case before Judge Robert W. Hilscher covers 777 printed pages, condensed from over 5,000 pages of type written stenographic reports. This trial lasted from September 19th to October 28th. The attorneys for the District were Haley & O'Donnell, F. W. C. Hayes and Special Counsel John S. Miller. A very large number of witnesses gave testimony. Besides its own Engineers, the following named eminent Engineers appeared for this District: John T. Fanning, John W. Rafter, George Y. Wisner, Ambrose V. Powell, W. S. McHarg and William W. Tyler.

The Chief Engineer's examination consumed five days. The decision of the Court sustained the contention of the District that its plans complied with all the terms and conditions of the contract of March 11, 1898, but denied the power of the parties to that contract to enter into it. On December 14th (page 5328) the Attorneys of the District were ordered to dismiss the appeal to the Supreme Court, and by mutual consent the decree shown upon pages 5328–39 was entered in the Will County Circuit Court. In many particulars this legal contest is of deep interest to engineers, involving as it did questions in construction and hydraulics, the discussion of which by the experts was very instructive.

On March 11th (pages 4654–9) the Board authorized its President and Clerk to execute the agreement with these Canal Commissioners for changes in the upper and middle basins at Joliet. The form of agreement appears in the Proceedings of March 11th (pages 4656–9). On March 16th (pages 4661–2) President Boldenweck announced that he had signed the said agreement.

On July 20th (pages 4979–81) the Board ordered the Chief Engineer to proceed rapidly with the prosecution of the work under the contract with these Commissioners and the District.

On September 7th (pages 5151–3) the Board adopted a memorial to the Governor of Illinois asking that he "lend his influence and authority to a solution of the difficulties" between the Canal Commissioners and the Sanitary District. On December 14th (pages 5327–44) the Board ordered that the appeal which was pending at that time in the Supreme Court of Illinois be dismissed, and that "the Attorneys of the District be directed * * * to prepare and present to the Circuit Court of Will County, a petition for review and amendment of said decree entered into said case under date of October 28, 1898."

Lockport Highway Commissioners.

On November 3rd (pages 5222–4), the Board ordered its President and Clerk to execute an agreement with the Lockport Highway Commissioners, in reference to the excavation of the Lockport Road and the Wire Mills Road highways on Section 16, and the construction of a bridge at each point in lieu thereof. The form of agreement appears in the Proceedings of the same date (pages 5223–4).

Water Power.

On March 11th (page 4659), the Board directed the Chief Engineer to "prepare and submit plans for the maximum development of water power at or below the site of the Controlling Works above Lockport." On April 6th (pages 4729–30), the Board directed the Chief Engineer "to change and modify certain plans now on file for the creation of water power along Route 'C.'"

Organization.

The work of the Engineering Department is still being carried on through three Divisions, namely, Drafting and Designing, Construction and Records. Mr. Thos. T. Johnston, who was in immediate charge of the Division of Drafting and Designing, resigned his position as Assistant Chief Engineer on August 10th (pages 5063–9), and was engaged by the Board as its Consulting Engineer, at a salary of $2,000.00 per year.

The Division of Drafting and Designing is now carried on by Mr. G. H. Hillebrand, Chief Draughtsman, and Mr. E. Wilmann, Assistant Bridge Engineer. The Division of Construction is made up of four subdivisions, as follows: Chicago River, in charge of Mr G. M. Wisner, who, in October, 1898, was promoted from Sub-Assistant Engineer to Assistant Engineer and placed in charge of that division at that time. The Corwith Division (Sections "O" to "D," inclusive) was carried on by Mr. E. R. Schnable until August 18th, when he resigned to accept a position with Gahan & Byrne, on their contract for Section 18 of this District. Mr. W. T. Keat-

ing, who was in charge of the Chicago River work until Mr. Wisner's promotion, was transferred and placed in charge at Corwith. On March 1st, Mr. J. W. Beardsley resigned his post as Assistant Engineer of the Lockport Division (Sections 5 to 18, inclusive) to accept a position with the Deep Waterways Commission, and Mr. H. B. Alexander, who was previously stationed at Willow Springs, was placed in charge at that point. The work on the Willow Springs Division (Sections "C" to 4, inclusive) is practically completed, but Mr. Alexander still has charge of same. The Division of Records is still being carried on by Mr. Wm. Trinkaus, Record Clerk.

On February 9th (page 4554), the President appointed Trustee Kelly "a committee of one to ascertain whether the reduction of the present gauge reading force can be made without injuring the District." On March 9th (page 4652), Mr. Kelly reported to the Board that "he had conferred with the Chief Engineer in regard to the matter, * * * and that it was thought best not to make any report until after the spring floods." On March 30th (page 4699), Mr. Kelly reported to the Board on this matter, and recommended that the gauge reader at Riverside be continued in the service of the District; that the services of the gauge readers at Summit, Willow Springs and Joliet be dispensed with, and that the gauge reading at the three last mentioned points be done by the Police Department. The Board adopted the report on that date.

On March 30th (page 4700), the Board authorized its President and Clerk to notify the Security Deposit Company of the desire of this District to cancel the supplemental lease for the Bridge Department's rooms, Nos. 901, 902 and 903, of the Security Building. On April 27th (page 4777), the Board authorized its President and Clerk to rent from month to month such other room as may be required by the said Bridge Department. This department is now located in Room 1003 of the said building.

On April 27th (page 4777), the Board authorized the re-employment of those employes of this District who may enter into the services of the United States in the Spanish-American War. On May 18th (page 4812), $40.00 were appropriated for the erection of a small wooden office for the use of the Engineer of the District on Section "E."

On June 1st (page 4847), Mr. W. M. Hughes resigned his position as Bridge Engineer of the District, and the Board empowered the Committee on Engineering to engage the services of the said Mr. Hughes, at such time and rate of compensation as the Committee deemed proper. On June 15th, the Committee on Engineering engaged Mr. Hughes at the rate of $25.00 per day for actual time spent in the service of the District. On July 29th (pages 4989-90), the Board accepted the $500.00 proposal of Mr. Hughes to prepare certain strain sheets and plans for the sub and superstructure of the at one time proposed three-track bridge for the Belt Railway of Chicago.

On June 8th (page 4863), the Board authorized its President and Clerk to rent from month to month such room in the Security Building as may be desired for cement testing purposes at a cost to the District of not more than $25.00 per month. On June 16th (page 4870), the President reported on this matter and stated that arrangements could be made for the renting of space room in the Rialto Building at $20.00 per month. The Board authorized its President to make an agreement to that effect.

The variety and value of the work done for 1898 in the several Divisions of this Department is shown in the monthly reports, found in the Proceedings as follows: January (pages 4670-80); February (pages 4680-89); March (pages 4766-75); April (pages 4819-28); May (pages 4902-12); June (pages 4966-76); July (pages 5081-90); August (pages 5171-80); September (pages 5202-13); October (pages 5252-63); November (pages 5362-73). The December report does not appear in the Proceedings for 1898.

The weekly reports of employes show that the largest number on the pay-roll of this Department during 1898 was 97, which was during the week ending January 8th (page 4475). The number of employes in this Department on December 31st was 78.

The pumping plant on Section 14 was in operation during the entire year of 1898. In order to allow the contractors for the substructure of the Bear Trap Dam to carry on their work, and to assist the above mentioned plant to keep down the general level of water, it was found necessary to install another plant on Section 15. The plant consisted of two Alton locomotives rented to supply steam, two slide valve engines and two single suction centrifugal pumps, and on May 27th began operations. The work of the locomo-

tives in supplying steam proved so unsatisfactory that they were abandoned and replaced by three horizontal boilers, loaned by Griffiths & McDermott on July 10th. From that time on the work of the plant was so satisfactory that the object for which it was installed was accomplished on July 30th and the plant shut down. The largest number of men employed in the pumping plant service during the year was eighteen, and the smallest number was four. On December 31st, there were eight men employed in this branch of the service.

The cost of the Engineering Department from its organization to December 31, 1898, has been $1,223,266.23. The total value of construction work accomplished during the same period is $20,457,825.09. The cost of engineering (which includes items of every character outside of construction) compared with the cost of construction is 5.98 per cent.

In the year 1898 the following holidays were declared by the Board on the following dates:

Lincoln's and Washington's birthdays, February 9th, page 4553.

Election Day, March 30th, page 4699.

Decoration Day, May 25th, page 4833.

Fourth of July, June 29th, page 4928.

Labor Day, August 31st, page 5164.

National Peace Jubilee Days, October 12th, page 5197.

Death of F. W. C. Hayes, November 2nd, page 5218.

Thanksgiving Day, November 23rd, page 5277.

Christmas and New Year's Days, December 21st page 5355.

Miscellaneous Items Forming a Part of the Records of the Engineering Department.

February 9th (page 4553) invitation to Congressional Committee to inspect Main Channel; February 16th (page 4568), petition dated January 2, 1896, requesting retention of Chief Engineer placed on file; February 16th (page 4568), communication from contractors on Section "O" on delay of work placed on file; February 16th (page 4568), recommendation of the Chief Engineer to allow contractors on Section "E" to spoil rock on south side of Main Channel placed on file; February 24th (page 4575), Trustee Wenter reported that the inspection of the Main Channel by the Congressional Committee had been made; August 24th (pages 5078-9), message of President Boldenweck on drainage of Calumet District referred to the Committee on Federal Relations; September 28th (pages 5164-5), authority given for testing Messrs. Gray & Drake's excavating machine on District property; September 28th (pages 5165-7), report on President Boldenweck's message on Calumet District; November 3rd (page 5225), communication from John Mabbs, M. E., on pollution of water supply referred to the Committee on Engineering and report on same on November 9th (page 5230); November 30th (pages 5288-9), communication from Dr. A. R. Reynolds, Commissioner of Health of the City of Chicago, on comparative examination of waters between Lake Michigan and St. Louis before and after the completion of the Drainage Channel referred to the Committee on Federal Relations; December 7th (page 5308), resolution in reference to examination of water of Illinois and Michigan Canal and Desplaines, Illinois and Mississippi Rivers referred to the Joint Committee on Federal Relations and Health and Public Order; December 6th (pages 5292-5301), annual message of President Boldenweck; December 21st (pages 5355-6), invitation to Governor of Illinois to appoint Commissioners of Inspection of Work of Sanitary District referred to a Joint Committee on Federal Relations and Health and Public Order, and on December 28th (pages 5377-8), an order was passed covering same.

Conclusion.

In concluding this report, which, owing to the multiplicity of subjects necessarily touched upon, I have been unable to keep within a narrow compass, I wish to express my appreciation of the loyal support which has been accorded me by the employes of the Engineering Department in carrying out the work which you have assigned to me.

For the many acts of kindly consideration which you, as a body and as individuals, have extended to me, and for the oft-repeated evidences of your confidence, allow me to tender you my sincere thanks.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,

Chief Engineer."

SANITARY DISTRICT OF CHICAGO—ENGINEERING

CLASSIFIED STATEMENT OF ENGINEERING

CLASSIFICATION.	January.	February.	March.	April.
Borings and Test Pits	.....	.....	.....	.....
Maps and Plans for General Use of Sanitary District	$ 397 38	$ 400 51	$ 616 33	$ 349 58
Chicago River Survey	510 16	653 30	166 26	191 95
Chicago River Improvement	380 40	274 20	827 69	990 45
Right of Way	1,010 55	465 41	202 04	461 33
Flood Measurements	123 60	126 60	355 54	127 10
Disposal Works and Joliet Project	1,554 38	2,005 44	2,044 39	3,230 68
Regular Construction—Main Channel and River Diversion	2,797 92	2,698 55	2,273 60	1,608 74
Levees, Embankments, etc	.....	.....	4 17	.....
Wire Mills Road Permanent Bridge, Main Channel, Section 16	.....	.....	.....	.....
Lockport Road Permanent Bridge, Main Channel, Section 16	.....	.....	.....	.....
Romeo Road Permanent Bridge, Main Channel, Section 12	.....	.....	.....	.....
Lemont Road Permanent Bridge, Main Channel, Section 8	.....	.....	21	.....
A., T. & S. F. Ry. Co.'s Permanent Bridge, Desplaines River, Section 8	225 00	640 20	962 73	38 60
A., T. & S. F. Ry. Co.'s Permanent Bridge, Main Channel and Track Deviation, Section 8	.....	.....	.....	839 06
Willow Springs Road Temporary Bridge, Main Channel, Section 1	.....	.....	.....	.....
Willow Springs Road Permanent Bridge, Main Channel, Section 1	.....	.....	.....	.....
C. T. T. R. R. Co.'s Temporary Bridge, Main Channel, Section E.	10 00	5 00	15 00	30 00
C. T. T. R. R. Co.'s Permanent Bridge, Main Channel, Section E.	10 00	8 00	43 00	130 48
C. T. T. R. R. Co.'s Temporary Bridge, Desplaines River, Section E	.....	.....	.....	.....
C. T. T. R. R. Co.'s Permanent Bridge, Desplaines River, Section E	.....	.....	.....	.....
Lyons-Summit Road Temporary Bridge, Main Channel, Section E	20 00	10 00	40 00	40 00
Lyons-Summit Road Permanent Bridge and Roadway, Main Channel, Section F	112 17	5 00	82 31	92 36
Lyons-Summit Road Temporary Bridge, Desplaines River, Section E	.....	.....	.....	.....
Lyons-Summit Road Permanent Bridge, Desplaines River, Section E	46 00	10 00	5 00	1 13
A., T. & S. F. Ry. Co.'s Permanent Bridge, Main Channel and Track Deviation, Section G	210 00	180 00	145 00	179 09
C. & W. I. Belt Ry.'s Permanent Bridge, Main Channel, Section K	37 84	18 00	100 00	100 00
A., T. & S. F. Ry. Co.'s Temporary Bridge, Main Channel, Section N	69	.....	.....	.....
A., T. & S. F. Ry. Co.'s Permanent Bridge, Main Channel, Section N	10 00	45 00	.....	82 01
Kedzie Avenue Temporary Roadway, Main Channel, Section N.	.....	.....	.....	512 15
Kedzie Avenue Permanent Bridge, Main Channel, Section N	360 00	107 00	123 35	.....
C., M. & N. R. R. Co.'s Bridges over Main Channel and Kedzie Avenue Viaduct and Track Deviation, Section N	125 56	183 00	32 21	110 11
Western Avenue Temporary Bridges, Main Channel, Section O	102 40	112 40	51 34	.....
Southwest Boulevard Bridge, Main Channel, Section O	1,139 09	1,267 00	636 00	211 12
Panhandle R. R. Co.'s Temporary Bridges, Main Channel, Section O	233 00	180 00	48	80 00
Panhandle R. R. Co.'s Permanent Bridge, Main Channel, Section O	701 85	189 20	193 74	27 80
Tow Path Permanent Bridge, Main Channel, Section 17	.....	.....	.....	.....
Jefferson Street Permanent Bridge, Main Channel, Joliet	.....	.....	.....	14 24
Cass Street Permanent Bridge, Main Channel, Joliet	.....	.....	.....	5 24
C., R. I. & P. Ry. Co.'s Permanent Bridge, Main Channel, Joliet	.....	.....	.....	.....
Mortar, Sand and Cement Tests	457 09	438 00	377 54	375 00
Photographs of Works	133 70	145 99	133 83	143 69
Public Reports	220 37	157 00	67 00	.....
Totals	$10,929 06	$10,324 80	$ 9,498 76	$ 9,971 91

DEPARTMENT—EXHIBIT A, TABLE NO. 1.

EXPENSES FOR THE YEAR 1898.

May.	June.	July.	August.	September.	October.	November.	December.	Totals.
.....	.....	.....	.....	.....	$ 3 15	.....	.....	$ 3 15
$ 245 87	$ 188 39	$ 214 70	$ 336 18	$ 132 62	98 09	$ 202 60	$ 85 40	3,267 65
.....	40 00	212 86	125 00	160 65	125 00	127 28	125 00	2,437 46
2,469 11	1,441 40	1,191 71	1,222 74	1,175 99	1,099 57	1,198 50	1,089 16	13,360 92
353 48	395 83	346 18	235 73	908 82	722 53	611 20	632 07	6,345 16
44 58	46 10	66 20	39 10	42 05	49 70	63 10	49 48	1,133 13
2,937 83	3,043 71	2,791 01	2,839 24	2,541 11	2,612 37	2,176 68	2,380 15	30,156 99
1,223 74	735 58	1,371 23	1,350 59	1,706 50	1,713 82	1,461 03	1,511 30	20,452 60
.....	.....	.....	.....	.....	.....	.....	.....	4 17
.....	.....	.....	77 00	128 30	15 24	100 00	75 00	395 54
.....	.....	.....	110 00	124 70	33 00	40 00	30 00	337 70
.....	67 00	118 47	28 00	43 04	77 23	10 37	53 16	397 27
.....	66 00	127 85	.....	3 14	51 01	38 77	299 66	586 64
2 88	.....	31 44	44 00	96	41 56	14 48	391 22	2,393 07
30 26	8 00	48 88	208 33	582 46	302 60	325 59	268 06	2,613 24
.....	.....	.....	.....	.....	9 00	.....	.....	9 00
.....	67 00	118 47	.....	13 49	74 33	223 60	91 59	588 48
20 00	20 00	20 00	40 00	.....	.....	30 00	80 00	270 00
280 24	240 00	236 00	482 62	205 00	313 83	60 00	50 00	2,059 17
.....	.....	.....	.....	80 00	40 00	100 00	60 00	280 00
.....	.....	58 40	5 00	1 00	57 24	123 00	60 00	304 64
30 00	30 00	15 00	15 00	.....	.....	.....	40 00	240 00
77 00	252 00	197 77	19 00	105 00	115 00	165 32	106 17	1,329 10
.....	.....	.....	.....	.....	.....	40 00	.....	40 00
1 32	180 00	186 82	240 00	120 00	135 34	88 00	70 00	1,063 61
52 24	116 11	88 51	124 25	138 86	670 12	60 00	90 00	2,054 18
100 00	125 00	112 86	500 00	1 93	10 17	25 00	.....	1,130 80
.....	.....	.....	20 00	.....	.....	.....	.....	20 69
124 64	200 00	172 50	170 00	168 50	661 71	120 00	96 00	1,850 36
.....	.....	.....	.....	.....	.....	.....	.....	512 15
272 48	214 00	262 32	315 00	176 96	147 71	110 00	211 89	2,300 71
784 49	282 00	383 34	380 00	197 00	686 27	250 00	699 82	4,113 80
21 80	.....	.....	15 00	25 00	.....	.....	.....	327 94
115 36	130 00	204 09	89 44	218 79	105 32	128 77	223 00	4,467 89
10 00	160 00	89 00	90 00	140 00	160 25	260 61	180 00	1,574 34
188 88	257 33	697 25	200 46	130 28	121 60	253 91	148 55	3,110 85
.....	.....	.....	.....	.....	.....	.....	9 00	9 00
.....	.....	1 19	30 00	40 24	104 00	104 00	125 00	418 67
.....	.....	.....	.....	30 23	113 00	178 00	105 00	431 47
.....	.....	.....	.....	.....	.....	206 00	120 00	326 00
399 38	322 00	378 83	433 26	380 11	486 12	420 53	341 67	4,809 53
126 95	133 55	127 19	135 08	181 48	157 72	153 71	125 00	1,697 89
.....	.....	.....	.....	.....	.....	.....	.....	444 37
$ 9,912 53	$ 8,761 00	$ 9,861 07	$ 9,920 02	$ 9,904 21	$11,113 59	$ 9,470 05	$10,022 33	$ 119,689 33

SANITARY DISTRICT OF CHICAGO—ENGINEERING

CLASSIFIED STATEMENT OF CONSTRUCTION

CLASSIFICATION.	January.	February.	March.	April.	May.
Chicago River Improvement	$ 1,163 75	$ 1,269 68	$ 3,865 31	$ 9,858 63	$ 10,112 98
Disposal Works and Joliet Project	231 23	.....	.....	7,522 44	14,602 81
Regular Construction—Main Channel and River Diversion	124,011 23	15,894 17	4,042 19	21,560 98	40,783 06
Extra Work—Main Channel	.....	.....	.....	.....	.....
Lockport Temporary Roadway, Section 16	.....	.....	.....	.....	.....
Lemont Road Permanent Bridge, Main Channel, Section 8	.....	.....	.....	.....	.....
A., T. & S. F. Ry. Co.'s Permanent Bridge, Desplaines River, Section 8	.....	.....	.....	.....	.....
A., T. & S. F. Ry. Co.'s Permanent Bridge, Main Channel and Track Deviation, Section 8	.....	.....	.....	.....	.....
Willow Springs Road Temporary Bridge, Main Channel, Section 1	.....	.....	.....	.....	.....
Willow Springs Road Permanent Bridge, Main Channel, Section 1	.....	.....	.....	.....	.....
C. T. T. R. R. Co.'s Temporary Bridge, Main Channel, Section E	250 87	.....	95 38	158 55	.....
C. T. T. R. R. Co.'s Permanent Bridge, Main Channel, Section E	.....	.....	.....	784 00	10,198 54
C. T. T. R. R. Co.'s Temporary Bridge, Desplaines River, Section E	.....	.....	.....	.....	.....
Lyons-Summit Road Temporary Bridge, Main Channel, Section E	42 43	.....	.....	.....	.....
Lyons-Summit Road Permanent Bridge and Roadway, Main Channel, Section F	2,172 08	.....	.....	.....	.....
Lyons-Summit Road Permanent Bridge, Desplaines River, Section E	.....	.....	.....	.....	.....
A., T. & S. F. Ry Co.'s Permanent Bridge, Main Channel and Track Deviation, Section G	2,677 12	.....	453 37	6,375 21	2,734 29
A., T & S. F. Ry. Co.'s Temporary Bridge, Main Channel, Section N	487 42	.....	.....	.....	172 45
A., T. & S. F. Ry. Co.'s Permanent Bridge, Main Channel, Section N	.....	.....	.....	909 91	353 50
Kedzie Avenue Temporary Roadway, Section N	16 67	.....	.....	257 69	.....
Kedzie Avenue Permanent Bridge, Main Channel, Section N	1,334 29	.....	.....	.....	1,466 28
C., M. & N. R. R Co.'s Bridges over Main Channel and Kedzie Avenue Viaduct, Section N	.....	1,307 68	8,953 48	.....	3,239 15
Western Avenue Temporary Bridges, Main Channel, Section O	.....	.....	.....	21 00	.....
Southwest Boulevard Bridge, Main Channel, Section O	9,083 86	9,585 83	2,022 10	1,571 15	6,270 08
Panhandle Temporary Bridges, Main Channel, Section O	5,154 33	692 68	344 25	2,943 46	.....
Panhandle Permanent Bridge, Main Channel, Section O	.....	.....	.....	.....	4,000 00
Taylor Street Permanent Bridge, Chicago River	.....	.....	.....	.....	.....
C. T. T. R. R. Co.'s Permanent Bridge, Chicago River	.....	.....	.....	.....	.....
Totals	$146,575 28	$28,749 99	$19,776 08	$51,963 02	$ 93,884 14

DEPARTMENT—EXHIBIT A, TABLE NO. 2.

EXPENSES FOR THE YEAR 1896.

June.	July.	August.	September.	October.	November.	December.	Totals.
$ 15,069 34	$ 13,120 99	$ 4,820 16	$ 4,746 66	$ 13,157 63	$ 18,103 97	$ 13,793 07	$ 109,082 12
10,977 69	16,111 75	20,641 25	25,440 77	27,134 96	20,304 28	22,350 13	165,318 31
49,742 92	42,213 71	40,641 75	27,549 70	76,442 03	48,497 40	15,337 55	506,666 69
1,000 00	.....	.....	.....	.....	.....	.....	1,000 00
.....	.....	.....	.....	932 67	.....	258 56	1,191 23
.....	.....	.....	.....	.....	1,793 75	3,212 20	5,005 95
.....	.....	.....	.....	16,134 00	.....	10,440 06	26,574 06
.....	.....	.....	10,851 39	5,683 42	3,197 32	2,285 00	22,017 13
.....	.....	.....	.....	7 00	.....	.....	7 00
.....	.....	.....	.....	1,225 00	3,758 13	2,935 39	7,918 52
.....	317 67	106 89	.....	223 98	.....	622 25	1,775 09
4,716 69	.....	17,326 20	.....	13,922 00	.....	663 63	47,611 06
.....	.....	.....	.....	.....	.....	3,353 40	3,353 40
.....	220 51	1,335 53	.....	.....	.....	.....	1,598 47
.....	.....	4,467 82	.....	.....	648 94	4,648 35	11,937 19
.....	1,705 08	5,929 34	951 12	1,073 60	145 00	3,026 68	12,830 82
3,170 52	284 92	537 35	32,200 73	.....	.....	286 72	48,720 23
.....	.....	58 44	.....	229 94	.....	.....	948 25
563 94	891 94	1,631 82	5,300 55	28,686 97	7,109 99	4,578 35	50,026 97
.....	.....	.....	.....	.....	.....	37 76	312 12
838 78	1,628 94	2,533 04	4,791 50	2,536 19	1,990 08	15,618 72	32,737 82
22,550 69	7,002 48	13,153 46	32,559 19	12,728 56	3,752 49	12,155 55	117,402 73
.....	.....	.....	60 42	.....	.....	50 83	132 25
1,945 13	2,666 48	3,547 42	2,846 03	1,885 80	1,260 17	1,693 83	44,327 88
516 90	38 95	164 82	4,589 23	605 96	413 35	2,990 46	18,454 39
7,000 00	.....	29,000 00	.....	1,119 08	888 24	—5,602 52	36,404 80
.....	.....	.....	.....	.....	.....	4,222 22	4,222 22
.....	.....	.....	.....	.....	.....	8,444 45	8,444 45
$ 118,092 60	$ 86,203 42	$ 145,894 79	$ 151,887 29	$ 203,728 79	$ 111,863 11	$ 127,402 64	$1,286,021 15

SANITARY DISTRICT OF CHICAGO—ENGINEERING DEPARTMENT—EXHIBIT A. TABLE NO. 3.

CLASSIFIED STATEMENT OF DISBURSEMENTS FROM DATE OF ORGANIZATION TO JANUARY 1, 1899.

Classification.	*Disbursements to January 1, 1898.*		*Disbursements for the Year 1898.*		*Totals.*	
	Engineering.	Construction.	Engineering.	Construction	Engineering.	Construction.
Preliminary Sundries	$ 120,633 75				$ 120,633 75	
Locating Route Main Channel	32,222 94				32,222 94	
Borings and Test Pits	18,129 29		$ 3 15		18,132 44	
Maps and Plans for General Use of Sanitary District	49,562 65		3,267 65		52,830 30	
Chicago River Survey	61,079 04		2,437 46		63,516 50	
Chicago River Improvement	6,342 57	$ 17,568 07	13,360 92	$ 109,082 12	19,708 49	$ 126,650 19
Right of Way	29,964 90		6,345 16		36,310 06	
Flood Measurements	25,339 95		1,133 13		26,473 08	
Disposal Works and Joliet Project	50,940 15	212,259 57	30,156 99	165,318 31	81,097 14	377,577 88
Regular Construction, Main Channel and River Diversion	538,489 79	17,764,528 19	20,452 60	506,666 69	558,942 39	18,271,194 88
Extra Work, Main Channel	31 33	62,618 63		1,000 00	31 33	63,618 63
Extra Work, River Diversion	9,723 42	334,304 74			9,723 42	334,304 74
Levees, Embankments, etc	1,018 32	193,177 19	4 17		1,022 49	193,177 19
Spillway	1,754 91	20,518 41			1,754 91	20,518 41
Wire Mills Road Permanent Bridge, Main Channel, Sec. 16			395 54		395 54	
Lockport Temporary Roadway, Main Channel, Sec. 16				1,191 23		1,191 23
Lockport Road Permanent Bridge, Main Channel, Sec. 16			337 70		337 70	
Romeo Road Permanent Bridge, Main Channel, Sec. 12	297 50		397 27		694 77	
Romeo Road Temporary Bridge, Main Channel, Sec. 12		1,120 78				1,120 78
Work Account Western Stone Co.'s Quarry No. 5, Sec. 10		8,865 65				8,865 65
Western Stone Co.'s Bridge, Desplaines River, Sec. 10	1,157 05	15,963 63			1,157 05	15,963 63
Western Stone Co.'s Temporary Bridge, Main Channel, Sec. 9		1,012 30				1,012 30
Lemont Road Permanent Bridge, Main Channel, Sec. 8	295 50		586 64	5,005 95	882 14	5,005 95
Lemont Road Temporary Bridge, Main Channel, Sec. 8		1,115 09				1,115 09
Lemont Road Bridge, Desplaines River, Sec. 8	985 66	22,329 89			985 66	22,329 89
A., T. & S. F. Ry. Co.'s Temporary Bridge, Desplaines River, Sec. 8	770 72	18,738 80			770 72	18,738 80
A., T. & S. F. Ry. Co.'s Permanent Bridge, Desplaines River, Sec. 8	781 70		2,393 07	26,574 06	3,174 77	26,574 06
A., T. & S. F. Ry. Co.'s Permanent Bridge, Main Channel and Track Deviation, Sec. 8	1,362 44		2,613 24	22,017 13	3,975 68	22,017 13
Willow Springs Road Temporary Bridge, Main Channel, Sec. 1		1,980 00	9 00	7 00	9 00	1,987 00
Willow Springs Road Permanent Bridge, Main Channel, Sec. 1	445 00		588 48	7,918 52	1,033 48	7,918 52
Mt. Forest Foot Bridge, I. & M. Canal, Sec. A	32 17				32 17	
C. T. T. R R. Co.'s Temporary Bridge, Main Channel, Sec. E	148 42	5,232 29	270 00	1,775 09	418 42	7,007 38
C. T. T. R. R. Co.'s Permanent Bridge, Main Channel, Sec. E	1,250 15		2,059 17	47,611 06	3,309 32	47,611 06
C. T. T. R. R. Co.'s Temporrry Bridge, Desplaines River, Sec. E			280 00	3,353 40	280 00	3,353 40

C. T. T. R. R. Co.'s Permanent Bridge, Desplaines River, Sec. E	363 45		304 64		668 09	
Lyons-Summit Road Temporary Bridge, Main Channel, Sec. E	599 05	4,051 05	240 00	1,598 47	839 05	5,649 52
Lyons-Summit Road Permanent Bridge and Roadway, Main Channel, Sec. F	313 28		1,329 10	11,937 19	1,642 38	11,937 19
Lyons-Summit Road Temporary Bridge, Desplaines River, Sec. E			40 00		40 00	
Lyons-Summit Road Permanent Bridge, Desplaines River, Sec. E	188 51		1,083 61	12,830 82	1,272 12	12,830 82
A., T. & S. F. Ry. Co.'s Permanent Bridge, Desplaines River, Sec. F	891 45				891 45	
A., T. & S. F. Ry. Co.'s Temporary Bridge, Main Channel, Sec. G	7 00				7 00	
A., T. & S. F. Ry Co.'s Permanent Bridge over Main Channel and Track Deviation, Sec. G	2,681 35	34,275 48	2,054 18	48,720 23	4,735 53	82,995 71
A., T. & S. F. Ry. Co.'s Permanent Bridge, Desplaines River, Sec. G	293 50				293 50	
C. & W. I. Belt Ry.'s Permanent Bridge, Main Channel, Sec. K	110 19		1,130 80		1,240 99	
A., T. & S. F. Ry. Co.'s Temporary Bridge, Main Channel, Sec. N	408 00	2,496 53	20 69	948 25	428 69	3,444 78
A., T. & S. F. Ry. Co.'s Permanent Bridge, Main Channel, Sec. N	2,683 62		1,850 36	50,026 97	4,533 98	50,026 97
Kedzie Avenue Temporary Roadway, Sec. N		755 60	512 15	312 12	512 15	1,067 72
Kedzie Avenue Permanent Bridge, Main Channel, Sec. N	657 06	1,409 27	2,300 71	32,737 82	2,957 77	34,147 09
C., M. & N. R. R. Co.'s Bridges over M. C. and Kedzie Avenue Viaduct and Track Deviation, Sec. N	2,516 55	17,728 26	4,113 80	117,402 73	6,630 35	135,130 98
Western Avenue Temporary Bridges, Main Channel, Sec. O	1,230 03	8,527 51	327 94	132 25	1,557 97	8,659 76
Southwest Boulevard Permanent Bridge, Main Channel, Sec. O	6,636 29	49,120 07	4,467 89	44,327 88	11,104 18	93,447 95
Panhandle Railroad Co.'s Temporary Bridges, Main Channel, Sec. O	1,617 85	23,585 06	1,574 34	18,454 39	3,192 19	42,039 39
Panhandle Railroad Co.'s Permanent Bridge, Main Channel, Sec. O	9,215 10	21,393 40	3,110 85	36,404 80	12,325 95	57,798 20
Taylor Street Permanent Bridge, Chicago River				4,222 22		4,222 22
C. T. T. R. R. Co.'s Permanent Bridge, Chicago River				8,444 45		8,444 45
E., J. & E. R. R. Co.'s Permanent Bridge, Main Channel North of Joliet	1,653 94	41,984 62			1,653 94	41,984 62
Tow Path Permanent Bridge, Main Channel, Section 17			9 00		9 00	
Jefferson Street Permanent Bridge, Main Channel at Joliet			418 67		418 67	
Cass Street Permanent Bridge, Main Channel at Joliet			431 47		431 47	
C., R. I. & P. R. R. Co.'s Permanent Bridge, Main Channel at Joliet			326 00		326 00	
Moving and Repairing Bridges	614 88	8,341 44			614 88	8,341 44
Building Romeo Highway, Section 12	106 34	1,732 72			106 34	1,732 72
Saving of Building Sand		781 63				781 63
Mortar, Sand and Cement Tests	26,716 75		4,809 53		31,526 28	
Saving of Dimension Stone		11,233 20				11,233 20
Erosion Tests	1,496 75				1,496 75	
Temporary Sanitary Relief	237 60				237 60	
Photographs of Works	7,413 82		1,697 89		9,111 71	
Public Reports	3,135 79		444 37		3,580 16	
Remeasurement of Main Channel	5,283 82				5,283 82	
Effect of Main Channel Water on Lake Levels	1,798 38				1,798 38	
General Account	71,947 23				71,947 23	
Totals	$ 1,103,576 90	$ 18,908,769 00	$ 119,689 33	$ 1,286,021 15	$ 1,223,266 23	$ 20,194,790 15
Amounts not passed by the Board prior to January 1, 1899					1,173 41	95,505 48
Clerk's net Dr. on January 1, 1899. (See page 5776)					$ 1,222,092 82	$ 20,099,284 67

SANITARY DISTRICT OF CHICAGO—ENGINEERING

DETAILED REVISED ESTIMATE OF MAIN CHANNEL, RIVER DIVERSION

Sections.	DESIGNATION.	CUBIC YARDS. Main Channel. Glacial Drift.	Main Channel. Solid Rock.	Main Channel. Retain'g Wall.	River Diversion. Glacial Drift.	River Diversion. Solid Rock.	Price.
Chicago River.	Lydon & Drews, Chicago River Improvement—						
	Excavation	600,000					$ 0.19
	Dock Removal, 300 lin. ft.						1.75
	Dock Construction, 298 lin. ft., including extra material amounting to $103.04.						14.25
	Total Chicago River Improvement	600,000					
	Lydon & Drews, By-pass—						
	Lump Sum for Removal of Sundries						
	Lumber in Cofferdam, 244,600 ft. B. M.						$ 30.00
	Piles for Cofferdam, 10,800 lin. ft.						.25
	Excavation for Walls	27,580					.50
	Excavation between Walls	30,270					.40
	Lumber for Temporary Roadway, 297,000 ft. B. M.						20.00
	Piles for Temporary Roadway, 20,500 lin. ft.						.15
	Reconstructing Freight House						
	Paving 2,700 sq. yds.						.50
	Iron for Cylinder Piers, 34 tons						75.00
	Piles for Cylinder Piers, 500 lin. ft						.30
	Portland Cement Concrete for Cylinder Piers, 54 cu. yds.						5.00
	Lumber for Wall Foundation, 644,160 ft. B. M.						21.00
	Masonry, 7275 cu. yds.						4.75
	Locating Water Tunnel Shaft, Etc.						
	Shaft for Water Tunnel, 50.07 lin. ft.						60.00
	New Water Tunnel, 19.55 lin. ft.						30.00
	Clearing away Material and Dredging at Adams Street						
	Totals for Lydon & Drews, By-pass	57,850					
	Griffiths & McDermott, By-pass						
	Superstructure, Lump Sum						
	Totals for Section	657,850					
O	Narrow Channel and Original Basin, Prism.	1,504,736					$ 0.21
	Enlargement of Basin, Prism	61,322					.21
	Enlarged Channel East of Pan Handle Bridge, Prism	44,977					.21
	Enlarged Channel Under Pan Handle Bridge, Prism	66,000					.21
	Collateral Channel	182,009					.199
	Borrow Pits	4,699					.21
	Surface Ditches	3,766					.21
	Removal of Temporary Roads	5,526					.21
	Narrow Cut Account Western Avenue Temporary Bridge						
	Dredge Pit Account Pan Handle Temporary Bridge						
	Western Avenue Temporary Bridges and Roadways						
	Pan Handle Temporary Bridges and Roadways						
	Totals for Section	1,823,035					
N	Main Channel Prism	1,105,443					$ 0.23
	Surface Ditches	8,400					.23
	A., T. & S. F. Ry. Co.'s Temporary Bridge.	1,466					.23
	Kedzie Avenue Temporary Roadway						
	Totals for Section	1,115,309					
M	Totals for Section (for Itemization of same see Annual Report for 1897)	728,180					
L	Totals for Section (for Itemization of same see Annual Report for 1897)	1,107,139					

DEPARTMENT--EXHIBIT B, TABLE NO. 1.

AND GENERAL CONSTRUCTION CONTRACTS TO JANUARY 1, 1899.

VALUES.

Main Channel.				River Diversion.			Bridges Charged to Sections.	General.
Glacial Drift.	Solid Rock.	Retaining Wall.	Miscellaneous.	Glacial Drift.	Solid Rock.	Miscellaneous.		
$ 114,000 00								
			$ 525 00					
			4,349 54					
$ 114,000 00			$ 4,874 54					
			1,000 00					
			7,338 00					
			2,700 00					
13,790 00								
12,108 00								
			5,940 00					
			3,075 00					
			750 00					
			1,350 00					
			2,550 00					
			150 00					
			270 00					
			13,527 36					
			34,556 25					
			447 44					
			3,004 20					
			586 50					
			947 72					
$ 25,898 00			$ 78,192 47					
			88,692 00					
$ 139,898 00			$ 171,759 01					
$ 315,994 56								
12,877 62								
9,445 17								
13,860 00								
26,269 79								
986 79								
790 86								
1,160 46								
							$ 3,984 54	
							5,550 61	
							8,659 76	
							42,771 55	
$ 381,385 25							$ 80,966 46	
254,251 89								
1,932 00								
							$ 3,444 78	
			$ 810 03					
$ 256,331 89			$ 810 03				$ 3,444 78	
$ 158,015 06								
$ 218,166 38								

EXHIBIT B, TABLE

Sections.	DESIGNATION.	CUBIC YARDS. Main Channel. Glacial Drift.	Main Channel. Solid Rock.	Main Channel. Retain'g Wall.	River Diversion. Glacial Drift.	River Diversion. Solid Rock.	Price.
K	Totals for Section (for Itemization of same see Annual Report for 1897)	1,189,584					
I	Totals for Section (for Itemization of same see Annual Report for 1897)	1,159,384					
H	Totals for Section (for Itemization of same see Annual Report for 1897)	1,094 011					
G	Main Channel Prism	1,355,844					$ 0.28
	Extra Width Section "F" Connection, Prism	221					.28
	Surface Ditches	7,676					.28
	Slides	32,163					.28
	Draining Impounded Water						
	Removing Spoil Bank, Force Account						
	Excavation of Trench, Force Account						
	Pumping Water out of Section						
	Totals for Section	1,395,094					
F	Ricker, Lee & Co.—						
	Main Channel Prism	497,763					$ 0.23¾
	Surface Ditches	1,147					.23¾
	River Diversion Prism				65,308		.23¾
	River Diversion Ditches				1,606		.23¾
	Levee Borrow				91,320		.23¾
	Totals for Ricker, Lee & Co	498,910			158,234		
	Weir, McKechney & Co.—						
	Main Channel Prism	382,717					$ 0.29½
	Gahan & Byrne—						
	Main Channel Prism	182,700					.29½
	Main Channel Prism		41,000				.90
	Surface Ditches	1,408					.29½
	Revetment Construction—						
	Excavation	24,000					.29½
	Revetment, 22,000 cu. yds.						.45
	Totals for Gahan & Byrne	208,108	41,000				
	McArthur Bros.—						
	Spillway—						
	Excavation				4,713		$ 0.699
	Construction						
	Excavation near Spillway				16,500		.7063
	Totals for McArthur Bros				21,213		
	Raising Santa Fe Bridge No. 5						
	Totals for Section	1,090,735	41,000		179,447		
	Streeter & Kenefick—						
	Main Channel Prism	467,640					$ 0.27½
	River Diversion Prism				68,769		.27½
	Borrow Pits for Levee				21,385		.27½
	River Diversion Ditches				5,564		.27½
	Overhaul 9,641 cu. yds. Glacial Drift						
	Ballasting Summit Highway						
	Removal of I. & M. Canal Bridge						
	Totals Under Streeter & Kenefick's Contract	467,640			95,718		
	Angus & Gindele—						
	Main Channel Prism	893,689					$ 0.27
	Surface Ditches	4,563					.27
	Removal of Ricker, Lee & Co's Levee	416					.27
	Totals for Angus & Gindele	898,668					
E	Halvorson, Richards & Co.—						
	Main Channel Prism	336,000					$ 0.27
	Surface Ditches	1,000					.27
	Main Channel Prism		290,000				.70

NO. 1—*Continued.*

VALUES.

Main Channel.				River Diversion.			Bridges Charged to Sections.	General.
Glacial Drift.	Solid Rock.	Retaining Wall.	Miscellaneous.	Glacial Drift.	Solid Rock.	Miscellaneous.		
$ 295,146 00			$ 41 79					
$ 289,846 00								
$ 317,263 19			$ 397 00					
$ 379,636 32								
61 88								
2,149 28								
9,005 64								
			$ 324 92					
			4,200 00					
			2,325 04					
			1,000 00					
$ 390,853 12			$ 7,849 96					
$ 118,218 71								
272 41								
				$ 15,510 65				
				381 43				
				21,688 50				
$ 118,491 12				$ 37,580 58				
112,901 52								
53,896 50								
	$ 36,900 00							
4,153 60								
7,080 00								
			$ 9,900 00					
$ 65,130 00	$ 36,900 00		$ 9,900 00					
				$ 3,294 60				
						$ 17,223 81		
				11,653 09				
				$ 14,947 69		$ 17,223 81		
						5,875 65		
$ 296,522 74	$ 36,900 00		$ 9,900 00	$ 52,528 27		$ 23,099 46		
$ 128,601 00								
				$ 18,911 47				
				5,880 88				
				1,539 10				
						$ 2,579 45		
						190 01		
								$ 260 00
$ 128,601 00				$ 26,322 45		$ 2,769 46		$ 260 00
241,296 68								
1,232 01								
112 32								
$ 242,640 36								
90,720 00								
270 00								
	$ 140,000 00							

EXHIBIT B. TABLE

Sections.	DESIGNATION.	CUBIC YARDS. Main Channel. Glacial Drift.	Main Channel. Solid Rock.	Main Channel. Retain'g Wall.	River Diversion. Glacial Drift.	River Diversion. Solid Rock.	Price.
	Revetment Construction—						
	Excavation	209,000	.....	.....	.....	.....	$0.27
	Revetment 205,000 cu. yds.	.....	.....	.....	.....	.....	.45
	C. T. T. R. R. Co.'s Temporary Bridge over Main Channel	.....	.....	.....	.....	.....	.....
E	C. T. T. R. R. Co.'s Temporary Bridge over Desplaines River	.....	.....	.....	.....	.....	.....
	Lyons-Summit Road Temporary Bridge over Main Channel	6,726	.....	.....	.....	.....	.27
	Totals Under Halvorson, Richards & Co.'s Contract	552,726	200,000	.....	.....	.....	.....
	Totals for Section	1,919,634	200,000	.....	95,718	.....	.....
D	Totals for Section (for Itemization of Same see Annual Report for 1897)	1,934,890	87,030	.....	.....	.....	.....
	Main Channel Prism	1,850,493	.....	.....	.....	.....	$ 0.23½
	Muck Berm	26,643	.....	.....	.....	.....	.23½
	Surface Ditches	1,853	.....	.....	.....	.....	.23½
	Slope Washouts	2,556	.....	.....	.....	.....	.23½
C	Revetting Slopes with Hard Material	.....	.....	.....	.....	.....	.23½
	River Diversion Prism	.....	.....	.....	170,788	.....	.23½
	Building Sand, 6,253 cu. yds.	.....	.....	.....	.....	.....	.12½
	Raising I. & M. Canal Spoil Bank	.....	.....	.....	.....	.....	.....
	Totals for Section	1,881,545	.....	.....	170,788	.....	.....
B	Totals for Section (for Itemization of same see Annual Report for 1897)	1,570,030	15,586	.....	212,486	.....	.....
A	Totals for Section (for Itemization of same see Annual Report for 1897)	2,560,648	13,312	.....	359,353	.....	.....
	Alfred Harlev—						
	Main Channel Prism	109,540	.....	.....	.....	.....	$ 0.27
	River Diversion Prism	.....	.....	.....	5,876	.....	.27
	River Diversion Prism, Force Account	.....	.....	.....	158,617	.....	.864
	River Improvement, Force Account	.....	.....	.....	10,162	.....	.42
	Willow Springs Road, Force Account	.....	.....	.....	.....	.....	.....
	Total during Alfred Harlev's Contract	109,540	.....	.....	174,655	.....	.....
	Work Pending Re-letting—						
	Hay for Repairing Levee	.....	.....	.....	.....	.....	.....
	Main Channel Prism, Heldmaier & Neu	11,926	.....	.....	.....	.....	$ 0.30⅝
	Raising Spoil Bank Levee, Force Account	.....	.....	.....	.....	.....	.....
	Willow Springs Road Levee, Force Acct.	.....	.....	.....	.....	.....	.....
	Raising I. & M. Canal Levee, Force Acct.	.....	.....	.....	.....	.....	.....
	Clearing Land on River Improvement	.....	.....	.....	.....	.....	.....
	Repairing Columbia Park Buildings	.....	.....	.....	.....	.....	.....
	Total Work Pending Re-letting	11,926	.....	.....	.....	.....	.....
1	Griffiths & McDermott—						
	Main Channel Prism	1,160,801	.....	.....	.....	.....	$ 0.429
	Main Channel Prism	.....	544,060	.....	.....	.....	.80
	Scabbling for Retaining Wall Foundations	.....	10,266	.....	.....	.....	.80
	Retaining Wall	.....	.....	68,256	.....	.....	2.90
	Slope Paving, 1,769 sq. yds.	.....	.....	.....	.....	.....	.60
	Overhaul to Sec. A, 164,051 cu. yds., glacial drift	.....	.....	.....	.....	.....	.20
	Dyke at Columbia Park	.....	.....	.....	.....	.....	.....
	Desplaines River Dam Removal	.....	.....	.....	.....	.....	.....
	Construction of Dam	.....	.....	.....	.....	.....	.....
	Willow Springs Road, Temporary Bridge	.....	.....	.....	.....	.....	.....
	Totals During Griffiths & McDermott's Contract	1,160,801	554,326	68,256	.....	.....	.....
	Totals for Section	1,282,267	554,326	68,256	174,655	.....	.....
2	Totals for Section (for Itemization of same see Annual Report for 1897)	724,905	483,750	38,506	119,224	.....	.....

NO. 1—*Continued.*

VALUES.

Main Channel.				*River Diversion.*			Bridges Charged to Sections.	General.
Glacial Drift.	Solid Rock.	Retaining Wall.	Miscellaneous.	Glacial Drift.	Solid Rock.	Miscellaneous.		
$ 56,430 00								
			$ 92,250 00					
							$ 7,007 38	
							3,353 40	
							4,358 02	
$ 147,420 00	$ 140,000 00		$ 92,250 00				$ 14,718 80	
$ 518,661 36	**$ 140,000 00**		**$ 92,250 00**	**$ 26,322 45**		**$ 2,760 46**	**$ 14,718 80**	**$ 200 00**
$ 511,536 54	**$ 80,502 75**					**$ 2,380 54**		
$ 434,865 86								
6,261 11								
435 46								
600 66								
			$ 600 42					
				$ 40,135 18				
								$ 781 63
			579 08					
$ 442,162 09			**$ 1,179 50**	**$ 40,135 18**				**$ 781 63**
$ 423,909 72	**$ 14,806 70**		**$ 270 00**	**$ 57,371 22**		**$ 2,000 12**		**$ 150 00**
$ 784,198 45	**$ 10,649 60**		**$ 6,736 03**	**$ 95,631 58**		**$ 20,110 15**		
$ 29,575 80								
				$ 1,586 52				
				137,039 32				
				4,268 04				
			$ 778 22					
$ 29,575 80			$ 778 22	$ 142,893 88				
			$ 10 50					
$ 3,652 34								
			1,044 05					
			1,719 86					
			241 57					
						$ 504 41		
								$ 30 00
$ 3,652 34			$ 3,015 98			$ 504 41		$ 30 00
$ 497,983 68								
	$ 435,248 00							
	8,212 80							
		$ 197,942 40						
			$ 1,061 40					
			32,810 20					
						$ 300 00		
						210 00		
			379 60					
							$ 1,987 00	
$ 497,983 68	$ 443,460 80	$ 197,942 40	$ 34,251 20			$ 510 00	$ 1,987 00	
$ 1,211 77	**$ 443,460 80**	**$ 197,942 40**	**$ 38,045 40**	**$ 142,893 88**		**$ 1,014 41**	**$ 1,987 00**	**$ 30 60**
$ 5,924 00	**$ 387,000 00**	**$ 134,771 00**		**$ 63,190 86**				**$ 90 00**

EXHIBIT B, TABLE

Sections.	DESIGNATION.	CUBIC YARDS. Main Channel. Glacial Drift.	Main Channel. Solid Rock.	Main Channel. Retain'g Wall.	River Diversion. Glacial Drift.	River Diversion. Solid Rock.	Price.
3	Totals for Section (for Itemization of same see Annual Report for 1897).....	425,705	760,778	14,039	.....	.....	.....
4	Totals for Section (for Itemization of same see Annual Report for 1897).....	1,096,746	263,423	68,169	100,803	17,857	.....
5	Totals for Section (for Itemization of same see Annual Report for 1897).....	952,526	378,609	56,059.1	12,256	.....	.....
6	Totals for Section (for Itemization of same see Annual Report for 1897).....	683,248	549,355	30,361.7	118,647	.....	.....
7	Totals for Section (for Itemization of same see Annual Report for 1897).....	181,721	890,939	6,179.9	97,917	43,102	.....
8	Main Channel Prism.....	43,578	.....	.....	.....	.....	$ 0.26
	Approaches to Stephens Street Bridge.....	6,592	.....	.....	.....	.....	.26
	Main Channel Prism.....	.....	1,140,408	.....	.....	.....	.74¾
	Main Channel Prism.....	.....	19,782	.....	.....	.....	.63
	Scabbling for Retaining Wall Foundation..	.....	723	.....	.....	.....	74¾
	Retaining Wall.....	.....	.....	2,874.9	.....	.....	3.25
	River Diversion Prism.....	.....	.....	.....	57,766	.....	.26
	Approaches to Stephens Street Bridge.....	.....	.....	.....	136	.....	.26
	River Diverson Prism.....	.....	.....	.....	.....	99,399	.74¾
	Tunnel and Open Cut Under A. T. & S. F. Ry. Co.'s Tracks—	.....	.....	.....	.....	.....	.....
	Excavation.....	.....	121.1	.....	.....	.....	1.50
	Tunneling, 92 lin. ft.....	.....	.....	.....	.....	.....	6.00
	Mason, Hoge, King & Co.'s Settlement of Claims—						
	Extra Cost Account Failure to Furnish Right of Way.....	.....	.....	.....	.....	.....	.....
	Repairing Levee.....	.....	.....	.....	.....	.....	.....
	Building Stephens Street Road.....	.....	.....	.....	.....	.....	.....
	Agnew & Co.'s Claims.....	.....	.....	.....	.....	.....	.....
	Moving Cable Towers.....	.....	.....	.....	.....	.....	.....
	Moving Telegraph Lines.....	.....	.....	.....	.....	.....	.....
	A. T. & S. F. Ry. Co.'s Temporary Bridge over Desplaines River.....	.....	.....	.....	.....	.....	.....
	Stephens Street Temporary Bridge over Main Channel.....	.....	.....	.....	.....	.....	.....
	Suppressing Fire on and Repairing Levee..	.....	.....	.....	.....	.....	.....
	Stephens Street Improvement.....	.....	.....	.....	.....	.....	.....
	Quarrying Dimension Stone, 1,370.2 cu. yds	.....	.....	.....	.....	.....	.....
	Totals for Section.....	50,170	1,161,034.1	2,874.9	57,902	99,399	.....
9	Totals for Section (for Itemization of same see Annual Report for 1897).....	76,692	1,003,769	.....	40,763	16,873	.....
10	Main Channel Prism.....	31,074	.....	.....	.....	.....	$ 0.25
	Western Stone Company's Roadbed.....	669	.....	.....	.....	.....	.25
	Main Channel Prism.....	.....	1,141,890	.....	.....	.....	.80
	River Diversion Prism.....	.....	.....	.....	30,313	.....	.25
	River Diversion Prism.....	.....	.....	.....	.....	58,276	.80
	Repairing Break in I. & M. Canal.....	.....	.....	.....	.....	.....	.....
	Building and Repairing Levee.....	.....	.....	.....	.....	.....	.....
	Smith's Platform at C. & A. Tracks.....	.....	.....	.....	.....	.....	.....
	Work Account, Western Stone Company's Quarry.....	.....	.....	.....	.....	.....	.....
	Building and Removing Stairway in Main Channel.....	.....	.....	.....	.....	.....	.....
	Totals for Section.....	31,743	1,141,890	.....	30,313	58,276	.....
11	Totals for Section (for Itemization of same see Annual Report for 1897).....	44,021	999,711	.....	12,609	15,677	.....
12	Totals for Section (for Itemization of same see Annual Report for 1897).....	44,030	998,709	9,286.94	11,739	7,475	.....
13	Totals for Section (for Itemization of same see Annual Report for 1897).....	33,810	1,033,665	10,838	.....	.....	.....

NO. 1—*Continued.*

VALUES.

Main Channel.				River Diversion.			Bridges Charged to Sections.	General.
Glacial Drift.	Solid Rock.	Retaining Wall.	Miscellaneous.	Glacial Drift.	Solid Rock.	Miscellaneous.		
$ 217,134 90	$ 578,191 28	$ 45,626 75				$ 338 42		
$ 526,715 68	$ 209,942 40	$ 238,591 50		$ 53,545 24	$ 26,249 79	$ 3,509 40		$ 85 25
$ 287,840 20	$ 278,277 61	$ 182,192 07	$ 897 40	$ 6,237 34		$ 415 30		
$ 183,271 98	$ 403,775 93	$ 98,675 52	$ 558 59	$ 32,034 69		$ 23,876 68		
$ 47,247 46	$ 654,840 17	$ 20,084 07	$ 372 44	$ 25,458 42	$ 31,679 97	$ 9,054 80		$ 3,758 00
$ 11,330 28								
1,713 92								
	$ 852,454 98							
	12,462 66							
	540 44							
		$ 9,343 48						
				$ 15,019 16				
				35 36				
					$ 74,300 76			
	181 65							
			$ 552 00					
			4,718 00					
						$ 83 55		
								$ 209 86
			2,000 00					
			2,992 15					
			487 58					
							$ 18,738 80	
							1,115 09	
						245 07		
								1,000 00
								1,370 20
$ 13,044 20	$ 865,639 73	$ 9,343 48	$ 10,749 73	$ 15,054 52	$ 74,300 76	$ 328 62	$ 19,853 89	$ 2,580 66
$ 19,939 92	$ 771,898 36		$ 3,000 00	$ 10,598 38	$ 12,975 34		$ 1,012 30	
$ 7,768 50								
167 25								
	$ 913,512 00							
				$ 7,578 25				
					$ 46,620 80			
			$ 7 04					
						$ 24,138 44		
						392 09		
								$ 8,865 65
								86 68
$ 7,935 75	$ 913,512 00		$ 7 04	$ 7,578 25	$ 46,620 80	$ 24,530 53		$ 8,952 33
13,316 35	$ 784,345 97		$ 55 18	$ 6,625 21	$ 18,183 29	$ 19,045 92		
13,319 67	$ 791,476 88	$ 32,472 20	$ 392 54	$ 3,551 05	$ 8,942 88	$ 9,274 59	$ 1,120 78	
8,790 60	$ 772,664 59	$ 37,933 00						

EXHIBIT B, TABLE

Sections.	DESIGNATION.	CUBIC YARDS. Main Channel. Glacial Drift.	Main Channel. Solid Rock.	Main Channel. Retain'g Wall.	River Diversion. Glacial Drift.	River Diversion. Solid Rock.	Price.
14	Totals for Section (for Itemization of same see Annual Report for 1897)	390,165	1,022,796	23,567.8	.....	.....	.....
15	Totals for Section (for Itemization of same see Annual Report for 1897)	35,324	647,039	44,811.2	619	.....	.....
Disposal Works.	Christie & Lowe—						
	Excavation	.....	1,288	.....	.....	.....	$ 0.59
	Concrete, 836.8 cu. yds	.....	.....	.....	.....	.....	5.00
	Lump Sum for Sluice Gates	.....	.....	.....	.....	.....	.....
	Lump Sum for Bear Trap	.....	.....	.....	.....	.....	.....
	Totals for Christie & Lowe	.....	1,288	.....	.....	.....	.....
	Griffiths & McDermott Const. Co.—						
	Excavation	.....	8,867	.....	.....	.....	$ 2.00
	Concrete, 5,200 cu. yds	.....	.....	.....	.....	.....	3.00
	Concrete, 2,901 cu. yds	.....	.....	.....	.....	.....	3.60
	Concrete, 2,450 cu. yds	.....	.....	.....	.....	.....	4.60
	Lump Sum for Metal and Lumber	.....	.....	.....	.....	.....	.....
	Extra Labor Removing Iron	.....	.....	.....	.....	.....	.....
	Totals for Griffiths & McDermott Const. Company	.....	8,867	.....	.....	.....	.....
	Totals for Disposal Works	.....	10,105	.....	.....	.....	.....
16	Main Channel Prism	.....	165,000	.....	.....	.....	$ 0.39
	Lockport Temporary Road	.....	.....	.....	.....	.....	.....
	Totals for Section	.....	165,000	.....	.....	.....	.....
17	Main Channel Prism	287,470	.....	.....	.....	.....	$ 0.29
	Main Channel Prism	.....	328,560	.....	.....	.....	.63
	Construction of Levee, 18,000 cu. yds	.....	.....	.....	.....	.....	.39
	Changing Location of Telegraph Lines	.....	.....	.....	.....	.....	.....
	Totals for Section	287,470	328,560	.....	.....	.....	.....
18	Excavation of Desplaines River Channel, Prism	175,500	.....	.....	.....	.....	$ 0.452
	Excavation of I. & M. Canal Channel, Prism	7,670	.....	.....	.....	.....	.58
	Excavation for Construction of Core	55,400	.....	.....	.....	.....	.22
	Removal of Dams Nos. 1 and 2 and Adams Dam	.....	.....	.....	.....	.....	.....
	Construction of New Dam above —59.0	.....	.....	.....	.....	.....	.....
	Construction of New Dam below —59.0, 150 cu. yds. Concrete	.....	.....	.....	.....	.....	1.50
	Excavation for Retaining Wall Foundation	2,000	.....	.....	.....	.....	.36
	Retaining Wall	.....	.....	6,300	.....	.....	4.05
	Excavation from Lock Walls	50	.....	.....	.....	.....	1.50
	Portland Cement Concrete, Repairing Lock Walls, 250 cu. yds	.....	.....	.....	.....	.....	6.00
	Construction of Wall, By-pass, 400 cu. yds	.....	.....	.....	.....	.....	4.05
	Furnishing and Placing Cast Iron Pipe and Water Gate, By-pass	.....	.....	.....	.....	.....	.....
	Excavation By-pass	15	.....	.....	.....	.....	1.40
	Extra Work Account Earth Core	.....	.....	.....	.....	.....	.....
	Totals for Section	240 635	.....	6,300	.....	.....	.....
Miscellaneous between Lockport & Joliet.	Crib Work	.....	.....	.....	.....	.....	.....
	Work at Hyde's Mill and Dam No. 1	.....	.....	.....	.....	.....	.....
	Total	.....	.....	.....	.....	.....	.....
	Grand Totals	23,088,409 6	12,739,391.1	379,249.54	1,801,339	253,059	.....

NO. 1—*Concluded.*

VALUES.

Main Channel.				River Diversion.			Bridges Charged to Sections.	General.
Glacial Drift.	Solid Rock.	Retaining Wall.	Miscellaneous.	Glacial Drift.	Solid Rock.	Miscellaneous.		
$119,132 04	$ 744,411 23	$ 64,575 77	$ 12,338 06					
$ 6,711 56	$ 381,753 01	$ 152,356 68	$ 11,093 20	$ 117 61				
	$ 730 42							
			$ 4,184 00					
			120,000 00					
			58,000 00					
	$ 730 42		$ 182,184 00					
	$ 17,734 00							
			$ 15,600 00					
			10,443 60					
			11,270 00					
			14,200 00					
			231 23					
	$ 17,734 00		$ 51,744 83					
	$ 18,464 42		$ 233,928 83					
	$ 64,350 00							
			$ 1,191 23					
	$ 64,358 00		$ 1,191 23					
$83,366 30								
	$ 206,992 80							
			$ 7,020 00					
			302 21					
$ 83,366 30	$ 206,998 80		$ 7,322 21					
$ 79,326 00								
4,448 60								
12,188 00								
			$ 4,000 00					
			17,751 00					
			225 00					
720 00								
		$ 25,515 00						
75 00								
			1,500 00					
			1,620 00					
			3,250 00					
21 00								
			116 18					
96,778 60		$ 25,515 00	$ 28,462 18					
								$32,140 89
								18,052 85
								$50,193 74
$ 946,268 55	$9,553,856 23	$1,240,001 39	$639,607 35	$ 838,874 65	$ 218,952 83	$ 142,328 90	$ 103,104 01	$71,881 01

SANITARY DISTRICT OF CHICAGO—ENGINEER

DETAILED REVISED ESTIMATE OF BRIDGE

DESIGNATION.	QUANTITIES. Masonry. Cu. Yds.	Excavation or Filling. Cu. Yds.	Piles. Lin. Ft.	Timber Ft.B.M.	Concrete. Cu. Yds.	Price.
Bridge Values Charged to Sections—						
Section O						
Section N						
Section E						
Section 1						
Section 8						
Section 9						
Section 12						
Total Bridge Values Charged to Sections						
Change of the Van Buren Street Approach Span, Chicago River—						
Masonry	114					$ 6 87½
Excavation		2,800				82½
Timber in Temporary Work				60,000		30 25
Timber in Foundation				41,000		41 25
Portland Cement Concrete					670	7 15
Old Masonry Removed, 600 cu. yds						1 37½
Granite Pavement Relaid, 90 sq. yds						1 87½
Cedar Block Pavement, 143 sq. yds						1 37½
Totals Substructure, etc	114	2,800		101,000	670	
Total Superstructure						
Totals for Change of the Van Buren Street Approach Span, Chicago River	114	2,800		101,000	670	
Chicago Terminal Transfer R. R. Co.'s Bridge Across Chicago River—						
Design of Bridge (Scherzer Rolling Lift Bridge, estimated)						
Taylor Street Bridge Across the Chicago River—						
Design of Bridge (Scherzer Rolling Lift Bridge, estimated)						
Southwest Boulevard Bridge Across Main Channel, Section O—						
Masonry	2,039.83					$ 6 71
Excavation		7,464.5				49½
Piles			6,004			27½
Timber in Foundation				10,560		28 60
Portland Cement Concrete					1,670.61	7 31½
Natural Cement Concrete					711.5	5 00
Coffer Dam						
Additional Cost Bedford Stone						
Excavation, Account Original Design		1,289				45
Piles, Account Original Design			4,809			25
Miscellaneous						
Totals Substructure	2,039.83	8,753.5	10,813	10,560	2,382.11	
Total Superstructure						
Hauling 200,000 cu.yds. material to Southwest Boulevard and Douglas Park as compensation to West Chicago Park Commission						$ 0 20
Totals for Southwest Boulevard Bridge	2,039.83	8,753.5	10,813	10,560	2,382.11	
Panhandle Bridge Across the Main Channel, Section O—						
Masonry	2,110					$12 00
Piles			29,600			30
Portland Cement Concrete					12,250	5 50
Auxiliary Work, including excavation of Bridge Pit		23,000				
Extra Price for Enlarged Channel Under Bridge, 66,000 cu. yds						24
Coffer Dams						
Totals Substructure	2,110	23,000	29,600		12,250	

ING DEPARTMENT—EXHIBIT B, TABLE NO. 2.

CONSTRUCTION CONTRACTS TO JANUARY 1, 1899.

VALUES.									
Masonry.	Excavation or Filling.	Piles.	Timber.	Concrete.	Miscellaneous.	Totals Substructure.	Superstructure.	General.	Totals.
									$ 60,966 46
									3,444 78
									14,718 80
									1,987 00
									19,858 89
									1,012 80
									1,120 78
									$ 103,104 01
$ 783 75									
	$2,310 00								
			$1,815 00						
			1,856 25						
				$ 4,790 50					
					$ 825 00				
					168 75				
					196 62				
$ 783 75	$2,310 00		$3,671 25	$ 4,790 50	$ 1,190 37	$ 12,745 87			
							$ 6,750 00		
$ 783 75	$2,310 00		$3,671 25	$ 4,790 50	$ 1,190 37	$ 12,745 37	$ 6,750 00		$ 19,495 87
							$ 25,333 33		$ 25,333 33
							$ 12,666 67		$ 12,666 67
$ 13,687 26									
	$3,694 93								
		$1,651 10							
			$ 302 02						
				$ 12,220 51					
				3,557 50					
					$ 8,814 85				
					3,845 00				
	580 05								
		1,202 25							
					10,366 99				
$ 13,687 26	$4,274 98	$2,853 35	$ 302 02	$ 15,778 01	$ 23,026 84	$ 59,922 46			
							$ 53,016 33		
								$ 40,000 00	
$ 13,687 26	$4,274 98	$2,853 35	$ 302 02	$ 15,778 01	$ 23,026 84	$ 59,922 46	$ 53,016 33	$ 40,000 00	$ 152,938 79
$ 25,320 00									
		$8,880 00							
				$ 67,375 00					
					$ 65,000 00				
					15,840 00				
					2,000 00				
$ 25,320 00		$8,880 00		$ 67,375 00	$ 82,840 00	$184,415 00			

EXHIBIT B, TABLE

DESIGNATION.	QUANTITIES. Masonry. Cu. Yds.	Excavation or Filling, Cu. Yds	Piles. Lin. Ft.	Timber Ft. B.M.	Concrete Cu. Yds.	Price.
Lump Sum for Superstructure	.....	.....	.....	.....	.....	.....
Cost of Scherzer Rolling Lift Bridge Design	.....	.....	.....	.....	.....	.....
Cost of Strobel Design	.....	.....	.....	.....	.....	.....
Abandoned Extra Superstructure ($21,638.40) less portion transferred to the C., M. & N. R. R. Co.'s Bridge over Kedzie Avenue ($5,602.52)	.....	.....	.....	.....	.....	.....
Total Superstructure	.....	.....	.....	.....	.....	.....
Totals for Panhandle Bridge	**2,110**	**23,000**	**29,600**	.....	**12,250**	.....
Chicago, Madison & Northern R. R. Co.'s Bridge Across the Main Channel, Section N—						
Masonry	2,239.3	.....	.....	.....	.....	$ 9 40
Excavation	.....	14,873	.....	.....	.....	36
Piles Delivered, 9,791 lineal feet	.....	.....	.....	.....	.....	14
Piles Driven	.....	.....	5,948	.....	.....	06½
Timber in Foundation	.....	.....	.....	17,712	.....	22 00
Portland Cement Concrete	.....	.....	.....	.....	1,747.7	5 00
Natural Cement Concrete	.....	.....	.....	.....	249.77	3 30
Totals Substructure	2,239.3	14,873	5,948	17,712	1,997.47	.....
Total Superstructure	.....	.....	.....	.....	.....	.....
Extra Cost Main Channel Excavation, 99,610 cu. yds	.....	.....	.....	.....	.....	$ 0 10
Raising Santa Fe Tracks near Kedzie Avenue	.....	.....	.....	.....	.....	.....
Moving Fence West of Kedzie Avenue	.....	.....	.....	.....	.....	.....
Construction of Embankment for New Alignment (Partial Quantities)	.....	2,976	.....	.....	.....	23
Track Laying and Ballasting New Alignment	.....	.....	.....	.....	.....	.....
Total Collateral Work	.....	2,976	.....	.....	.....	.....
Totals for C., M. & N. R. R. Co.'s Bridge	**2,239.3**	**17,849**	**5,948**	**17,712**	**1,997.47**	.....
Chicago, Madison & Northern R. R. Co.'s Bridge across Kedzie Avenue, Section N—						
Masonry	33.88	.....	.....	.....	.....	$16 00
Excavation	.....	1,909	.....	.....	.....	50
Portland Cement Concrete	.....	.....	.....	.....	561.81	7 00
Totals Substructure	33.88	1,909	.....	.....	561.81	.....
Removing Three Girders from Pan Handle Bridge Site	.....	.....	.....	.....	.....	.....
Freight Switching Charges on Three Girders	.....	.....	.....	.....	.....	.....
Three Girders and Two Floor Systems Transferred from Pan Handle Bridge Site, 200,090 lbs	.....	.....	.....	.....	.....	$ 0 28
Total Account Superstructure	.....	.....	.....	.....	.....	.....
Totals for Chicago, Madison & Northern R. R. Co.'s Bridge	**33.88**	**1,909**	.....	.....	**561.81**	.....
Kedzie Avenue Bridge across Main Channel, Section N—						
Masonry	1,344.68	.....	.....	.....	.....	$ 6 90
Excavation	.....	5,380	.....	.....	.....	35
Portland Cement Concrete	.....	.....	.....	.....	1,263.32	5 00
Natural Cement Concrete	.....	.....	.....	.....	278.84	3 25
Totals Substructure	1,344.68	5,380	.....	.....	1,542.16	.....
Total Superstructure	.....	.....	.....	.....	.....	.....
Grading Approaches to Bridge	.....	1,721	.....	.....	.....	$ 0 23
Extra Cost Main Channel Excavation, 28,081 cu. yds	.....	.....	.....	.....	.....	10
Taking care of Spring under Pier	.....	.....	.....	.....	.....	.....
Total Collateral Work	.....	1,721	.....	.....	.....	.....
Totals for Kedzie Avenue Bridge	**1,344.68**	**7,101**	.....	.....	**1,542 16**	.....
Atchison, Topeka & Santa Fe Ry. Co.'s Bridge across the Main Channel, Section N—						
Masonry	1,157.93	.....	.....	.....	.....	$ 9 40
Excavation	.....	5,676	.....	.....	.....	36

NO. 2—*Continued.*

VALUES.

Masonry.	Excavation or Filling.	Piles.	Timber.	Concrete.	Miscellaneous.	Total Substructure.	Superstructure.	General.	Totals.
							$175,565 00		
							35,000 00		
							3,000 00		
							16,035 88		
							$229,600 88		
$ 25,320 00		$8,800 00		$ 67,375 00	$ 82,840 00	$184,415 00	$229,600 88		$ 414,015 88
$ 21,049 42									
	$5,354 28								
		$1,370 74							
		386 62							
			$ 389 66						
				$ 8,738 50					
				824 24					
$ 21,049 42	$5,354 28	$1,757 36	$ 389 66	$ 9,562 74		$ 38,113 46			
							$ 71,164 00		
								$ 9,961 00	
								13,950 65	
								13 20	
								10,557 89	
								13,434 94	
								$ 47,917 68	
$ 21,049 42	$5,354 28	$1,757 36	$ 389 66	$ 9,562 74		$ 38,113 46	$ 71,164 00	$ 47,917 68	$ 157,195 14
$ 542 08									
	$ 954 50								
				$ 3,932 67					
$ 542 08	$ 954 50			$ 3,932 67		$ 5,429 25			
							$ 490 00		
							80 00		
							5,602 52		
							$ 6,172 52		
$ 542 08	$ 954 50			$ 3,932 67		$ 5,429 25	$ 6,172 52		$ 11,601 77
$ 9,278 29									
	$1,883 00								
				$ 6,316 60					
				906 23					
$ 9,278 29	$1,883 00			$ 7,222 83		$ 18,384 12			
							$ 21,315 00		
								$ 395 83	
								2,808 10	
								27 73	
								$ 3,231 66	
$ 9,278 29	$1,883 00			$ 7,222 83		$ 18,384 12	$ 21,315 00	$ 3,231 66	$ 42,930 78
$ 10,884 54									
	$2,043 36								

EXHIBIT B, TABLE

DESIGNATION.	QUANTITIES. Masonry. Cu. Yds.	Excavation or Filling. Cu. Yds.	Piles. Lin. Ft.	Timber Ft. B.M.	Concrete Cu. Yds.	Price.
Piles Delivered, 5,030 lin. ft.						$ 0 14
Piles Driven			4,544			06½
Timber in Foundation				9,408		22 00
Portland Cement Concrete					1,331.43	5 00
Transferring Piles from the C. T. T. R. R. Co.'s Bridge						
Totals Substructure	1,157.93	5,676	4,544	9,408	1,331.43	
Total Superstructure						
Construction of Embankment for New Alignment		1,769				$ 0 23
Extra Cost Main Channel Excavation, 24,972 cu. yds.						10
Raising Tracks of Santa Fe Main Line near Twenty-sixth Street Line Crossing						
Building Box Culvert under "Y" Track						
Total Collateral Work		1,769				
Totals for A., T. & S. F. Ry. Co.'s Bridge	1,157.93	7,445	4,544	9,408	1,331.43	
Atchison, Topeka & Santa Fe Ry. Co.'s Bridge across Main Channel, Section G—						
Masonry	1,510.37					$ 9 40
Excavation		6,716				35
Piles Delivered, 7,955 lin. ft.						14
Piles Driven			5,748			06½
Timber in Foundation				10,704		22 00
Portland Cement Concrete					1,418.66	5 00
Totals Substructure	1,510.37	6,716	5,748	10,704	1,418.66	
Total Superstructure						
Completing Embankment behind Bridge Abutments		2,953				$ 0 28
Construction of Embankment for New Alignment		75,584				28
Track-laying, Ballasting and Telegraph Wire Changes Account New Alignment						
Repairing and Strengthening New Roadbed						
Cutting Down New Roadbed, 1,024 cu. yds.						28
Removing Fence, Store and Lodging House						
Draining Nickerson's Ditch and Camp Grounds						
Total Collateral Work		78,537				
Totals for A., T. & S. F. Ry. Co.'s Bridge	1,510.37	85,253	5,748	10,704	1,418.66	
Atchison, Topeka & Santa Fe Ry. Co.'s Bridge across Desplaines River, Section F—						
Total Proportionate Cost of Bridge (½ of $38,643.60)						
Lyons-Summit Road Bridge across the Main Channel, Section F—						
Masonry	1,134					$10 50
Excavation		2,370				40
Piles Delivered, 4,000 lin. ft.						15
Piles Driven			4,000			15
Sheet Piling				1,000		30 00
Timber in Foundation				5,300		25 00
Natural Cement Concrete					296	3 50
Portland Cement Concrete					554	6 00
Totals Substructure	1,134	2,370	4,000	6,300	850	
Total Superstructure						
Work Account Summit Road						
Totals for Lyons-Summit Road Bridge	1,134	2,370	4,000	6,300	850	
Lyons-Summit Road Bridge across the Desplaines River, Section E—						
Excavation		1,414				$ 0 60
Bedford Stone Pedestals	8.21					12 00
Portland Cement Concrete					779.25	6 25

NO. 2—*Continued.*

VALUES.

Masonry.	Excavation or Filling.	Piles.	Timber.	Concrete.	Miscellaneous.	Totals Substructure.	Superstructure.	General.	Totals.
		$ 704 20							
		295 36							
			$ 206 98						
				$ 6,657 15					
					$ 239 26				
$ 10.884 54	$2,043 36	$ 999 56	$ 206 98	$ 6,657 15	$ 239 26	$ 21,030 85			
							$ 43,931 12		
								$ 662 63	
								2,497 20	
								1,034 88	
								19 47	
								$ 4,214 18	
$ 10.884 54	$2.043 36	$ 999 56	$ 206 98	$ 6,657 15	$ 239 26	$ 21,030 85	$ 43.931 12	$ 4.214 18	$69,176 15
$ 14,197 48									
	$2,350 60								
		$1,113 70							
		373 62							
			$ 235 49						
				$ 7,093 30					
$ 14,197 48	$2,350 60	$1,487 32	$ 235 49	$ 7,093 30		$ 25,364 19			
							$ 51,040 00		
								$ 826 84	
								21.163 52	
								2,326 23	
								537 35	
								286 72	
								130 23	
								159 90	
								$ 25,430 79	
$ 14,197 48	$2.350 60	$1.487 32	$ 235 49	$ 7,093 30		$ 25.364 19	$ 51,040 00	$ 25.430 79	$ 101.834 98
									$ 19,321 88
$ 11,907 00									
	$ 948 00								
		$ 600 00							
		600 00							
			$ 30 00						
			132 50						
				$ 1,036 00					
				3,324 00					
$ 11,907 00	$ 948 00	$1,200 00	$ 162 50	$ 4,360 00		$ 18,577 50			
							$ 12.620 00		
								$ 6,639 90	
$ 11.907 00	$ 948 00	$1,200 00	$ 162 50	$ 4,360 00		$ 18,577 50	$ 12,620 00	$ 6.639 90	$ 37,837 40
	$ 848 40								
98 52				$ 4,870 31					

EXHIBIT B, TABLE

DESIGNATION.	QUANTITIES. Masonry.	Excavation or Filling. Cu. Yds.	Piles. Lin. Ft.	Timber Ft.B.M.	Concrete Cu. Yds.	Price.
Portland Cement Concrete Between Pedestals					5.84	$ 9 00
Iron on Piers, 2,818½ lbs.						10
Cutting and Hauling Additional Piece of Stone Coping						
Totals Substructure	8.21	1,414			785.09	
Superstructure, Massillon Bridge Co.						
Lowering Truss						
Total Superstructure						
Grading Approaches to Bridge		3,643				$ 0 27
Removing Old Roadbed		500				40
Improving Lyons-Summit Road 323.36 cu. yds. Crushed Stone						90
Total Collateral Work		4,143				
Totals for Lyons-Summit Road Bridge	8.21	5,557			785.09	
Chicago Terminal Transfer Railroad Co.'s Bridge across Main Channel, Sec. E—						
Masonry	1,231.39					$ 9 40
Excavation		3,554.1				46
Piles Delivered, 1,650						14
Piles Driven			1,166.5			10
Sheet Piling				2,532		31 00
Timber in Foundation				3,672		22 00
Natural Cement Concrete					238.27	3 50
Portland Cement Concrete					693 13	5 00
Totals Substructure	1,231.39	3,554.1	1,166.5	6,204	931.40	
Superstructure, Contract Price						
Extra Material, 1,562 lbs. steel						$ 0 02½
Change in Drawings						
Total Superstructure						
Grading Approaches to Bridge		1,194				$ 0 27
Totals for Chicago Terminal Transfer Railroad Co.'s Bridge	1.231.39	4.748.1	1,166.5	6.204	931.40	
Chicago Terminal Transfer R. R. Co.'s Bridge across Desplaines River, Sec. E—						
Masonry Removed, 143 cu. yds.						$ 2 25
Masonry	411					7 60
Excavation		972				65
Piles Delivered, 1,000 lin. ft.						25
Piles Driven			1,000			30
Sheet Piling				3,000		25 00
Portland Cement Concrete					241	8 50
Raising Three Spans						
Totals Substructure	411	972	1,000	3,000	241	
Total Superstructure						
Totals for Chicago Terminal Transfer Railroad Co.'s Bridge	411	972	1,000	3.000	241	
Willow Springs Road Bridge across the Main Channel, Section 1—						
Masonry	419.2					$11 50
Excavation		1,233				1 00
Excavation		851				40
Piles Delivered and Driven			400			1 00
Portland Cement Concrete					179.4	5 00
Totals Substructure	419.2	2,084	400		179 4	
Total Superstructure						

NO. 2—*Continued.*

VALUES.

Masonry.	Excavation or Filling. Cu. Yds.	Piles.	Timber.	Concrete.	Miscellaneous.	Totals Substructure.	Superstructure.	General.	Totals.
				$ 52 56					
					$ 281 85				
					7 50				
$ 98 52	$ 848 40			$ 4,922 87	$ 289 35	$ 6,159 14			
							$ 5,200 00		
							145 00		
							$ 5,345 00		
								$ 983 61	
								200 00	
								291 02	
								$ 1,474 63	
$ 98 52	$ 848 40			$ 4,922 87	$ 289 35	$ 6,159 14	$ 5,345 00	$ 1,474 63	$ 12,978 77
$ 11,575 07									
	$1,634 89								
		$ 231 00							
		116 65							
			$ 78 49						
			80 78						
				$ 833 95					
				3,465 65					
$ 11,575 07	$1,634 89	$ 347 65	$ 159 27	$ 4,299 60		$ 18,016 48			
							$ 28,877 00		
							42 95		
							11 00		
							$ 28,930 95		
								$ 322 38	
$ 11,575 07	$1,634 89	$ 347 65	$ 159 27	$ 4,299 00		$ 18,016 43	$ 28,930 95	$ 322 38	$ 47,269 81
					$ 321 75				
$ 3,128 60									
	$ 631 80								
		$ 250 00							
		300 00							
			$ 75 00						
				$ 2,048 50					
					750 00				
$ 3,128 60	$ 631 80	$ 550 00	$ 75 00	$ 2,048 50	$ 1,071 75	$ 7,500 65			
							$ 7,318 00		
$ 3,128 60	$ 631 80	$ 550 00	$ 75 00	$ 2,048 50	$ 1,071 75	$ 7,500 65	$ 7,318 00		$ 14,818 65
$ 4,820 80									
	$1,233 00								
	340 40								
		$ 400 00							
				$ 897 00					
$ 4,820 80	$1,573 40	$ 400 00		$ 897 00		$ 7,691 20			
							$ 14,900 00		

EXHIBIT B, TABLE

DESIGNATION.	QUANTITIES.					Price.
	Masonry.	Excavation or Filling. Cu. Yds.	Piles. Lin. Ft.	Timber Ft.B.M	Concrete Cu. Yds.	
Changing Road at Willow Springs						
Changing Alignment of Temporary Bridge						
Total Collateral Work						
Totals for Willow Springs Bridge	419.2	2084	400		179 4	
Atchison, Topeka & Santa Fe R'y Co.'s Bridge across the Main Channel, Section 8—						
Masonry	447.41					$12 00
Excavation		1,020				50
Portland Cement Concrete					369.66	5 50
Totals for Substructure	447.41	1,020			369.66	
Total Superstructure						
Construction of Embankment for new Alignment		126,900				$ 0 18
Excavation Front of North Abutment		1,200				22
Inspecting Tracks and watching Material						
Total Collateral Work		128,100				
Totals for A. T. & S. F. R'y Co.'s Bridge	447.41	129.120			369.66	
Atchison, Topeka & Santa Fe R'y Co.'s Bridge across the Desplaines River, Section 8—						
Total Proportionate Cost of Substructure (one-half of estimated cost $17,000)						
Total Proportionate Cost of Superstructure (one-half of $26,924.06)						
Totals for A. T. & S. F. R'y Co.'s Bridge						
Lemont Road Bridge across the Main Channel, Section 8—						
Masonry	281					$11 85
Excavation		1,650				1 00
Portland Cement Concrete					179	5 00
Totals for Substructure	281	1,650			179	
Total Superstructure						
Work Account Lemont Road		356				$ 0 22
Totals for Lemont Road Bridge	281	2.006			179	
Lemont Road Bridge across the Desplaines River, Section 8— Total for Lemont Road Bridge (Force Account)						
Western Stone Co.'s Bridge across the Desplaines River, Section 10— Total for Western Stone Co.'s Bridge (Force Account)						
Romeo Road Bridge across the Main Channel, Section 12—						
Masonry	774					$ 9 25
Excavation		153				75
Natural Cement Concrete					155	7 00
Portland Cement Concrete					153	8 50
Totals for Substructure	774	153			308	
Total for Superstructure						
Totals for Romeo Road Bridge	774	153			308	
Lockport Road Bridge across the Main Channel, Section 16—						
Excavation		326				$ 1 00
Portland Cement Concrete					460	6 95
Totals for Substructure		326			460	
Total for Superstructure						
Totals for Lockport Road Bridge		326			460	

NO. 2—*Continued.*

VALUES.

Masonry.	Excavation or Filling. Cu. Yds.	Piles.	Timber.	Concrete.	Miscellaneous.	Totals Substructure.	Superstructure.	General.	Totals.
								$ 114 71	
								112 61	
								$ 227 32	
$ 4,830 80	$1,573 40	$ 400 00		$ 897 00		$ 7,691 20	$ 14,900 00	$ 227 32	$ 22,818 52
$ 5,368 92									
	$ 510 00			$ 2,033 13					
$ 5,368 92	$ 510 00			$ 2,033 13		$ 7,912 05			
							$ 76,185 00		
								$ 22,842 00	
								264 00	
								381 85	
								$ 23,487 85	
$ 5,368 92	$ 510 00			$ 2,033 13		$ 7,912 05	$ 76,185 00	$ 23,487 85	$ 107,564 00
					$ 8,500 00	$ 8,500 00			
							$ 13,462 03		
					$ 8,500 00	$ 8,500 00	$ 13,462 03		$ 21,962 03
$ 3,329 85									
	$ 1,650 00								
				$ 895 00					
$ 3,329 85	$ 1,650 00			$ 895 00		$ 5,874 85			
							$ 14,990 00		
								$ 193 89	
$ 3,329 85	$ 1,650 00			$ 895 00		$ 5,874 85	$ 14,990 00	$ 193 89	$ 21,058 74
									$ 22,329 89
									$ 15,963 63
$ 7,159 50									
	$ 114 75								
				$ 1,085 00					
				1,300 50					
$ 7,159 50	$ 114 75			$ 2,385 50		$ 9,659 75			
							$ 14,990 00		
$ 7,159 50	$ 114 75			$ 2,385 50		$ 9,659 75	$ 14,990 00		$ 24,649 75
	$ 326 00								
				$ 3,197 00					
	$ 326 00			$ 3,197 00		$ 3,523 00			
							$ 10,954 00		
	$ 326 00			$ 3,197 00		$ 3,523 00	$ 10,954 00		$ 14,477 00

EXHIBIT B, TABLE

DESIGNATION.	QUANTITIES.					Price.
	Masonry.	Excavation or Filling. Cu. Pds.	Piles. Lin. Ft.	Timber Ft.B.M.	Concrete Cu. Yds.	
Wire Mills Road Bridge across the Main Channel, Section 16—						
Excavation	.....	170	.....	.....	.....	$0 50
Lumber in Trestle Work	.....	.....	.....	112,000	.....	18 00
Old Masonry Removed, 132 cubic yards	.....	.....	.....	.....	.....	40
Portland Cement Concrete	.....	.....	.....	.....	465	7 50
Raising One Span	.....	.....	.....	.....	.....	.....
Totals for Substructure	.....	170	.....	112,000	465	.....
Total for Superstructure	.....	.....	.....	.....	.....	.....
Totals for Wire Mills Road Bridge	.....	170	.....	112,000	465	.....
Elgin, Joliet & Eastern R. R. Co.'s Bridge, between Sections 16 and 17—						
Totals for E. J. & E. R.R. Co.'s Bridge (for itemization of same see Annual Report for 1897)	895.38	.....	.....	.....	146.46	.....
Grand Totals	16,151.58	301,616.6	63,219.5	276,838	27,068.65	.....

NO. 2—*Concluded.*

VALUES.

Masonry.	Excavation or Filling. Cu. Yds.	Piles.	Timber.	Concrete.	Miscellaneous.	Totals Substructure.	Superstructure.	General.	Totals.
.....	$ 85 00	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	$2,016 00	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	$ 52 80	.....	.....	.....	.....
.....	.....	.....	.....	$ 3,487 50	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	175 00	.....	.....	.....	.....
.....	$ 85 00	.....	$2,016 00	$ 3,487 50	$ 227 80	$ 5,816 30	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	$ 8,945 00	.....	.....
.....	$ 85 00	.....	$2,016 00	$ 3,487 50	$ 227 80	$ 5,816 30	$ 8,945 00	.....	$ 14,761 30
$ 5,461 32	.....	.....	.....	$ 1,017 00	$ 71 80	$ 6,551 52	$ 33,510 32	$ 1,922 28	$ 41,984 62
$143,587 90	$27,492 96	$18,475 24	$7,218 17	$151,956 20	$117,457 17	$471,187 64	$763,149 65	$155,062 56	$ 1,550,130 18

SANITARY DISTRICT OF CHICAGO—ENGINEERING DEPARTMENT—EXHIBIT B, TABLE NO. 3.

CLASSIFIED SUMMARY OF CONSTRUCTION CONTRACT QUANTITIES TO JANUARY 1, 1899.

DESIGNATION.	MAIN CHANNEL—CUBIC YARDS.					RIVER DIVERSION—CU. YDS.			Masonry and Concrete Cu. Yds.	Piles. Lineal Feet.
	Glacial Drift.		*Solid Rock.*		Retaining Wall.	*Glacial Drift.*		*Solid R'k*		
	Prism.	Outside Prism.	Prism.	Outside Prism.		Prism.	Outside Prism.	Prism.		
Chicago River Improvement	600,000	57,850							7,329	31,800
Section O	1,677,085	146,000								
" N	1,105,443	9,866								
" M	717,650	10,530								
" L	1,094,081	13,058								
" K	1,147,753	32,831								
" I	1,131,649	27,735								
" H	1,073,645	20,366								
" G	1,356,065	39,839								
" F	1,063,180	26,555	41,000			65,308	114,139			
" E	1,697,329	221,705	200,000			68,769	26,949			
" D	1,929,587	5,208	87,030							
" C	1,850,493	31,052				170,788				
" B	1,568,945	1,091	15,586			212,486				
" A	2,553,751	6,897	13,312			128,425	230,928			
" 1	1,282,267		544,060	10,266	68,256	164,493	10,162			
" 2	728,684	1,231	474,724	9,026	38,506	119,234				
" 3	425,705		755,771	5,007	14,039					
" 4	1,096,746		255,487	6,941	68,169	106,803		17,857		
" 5	915,839	36,687	370,626	7,983	56,059.1	12,256				
" 6	683,248		545,873	3,482	30,361.7	118,647				
" 7	181,721		888,578	2,361	6,179.9	97,917		43,102		
" 8	43,578	6,592	1,160,311.1	723	2,874.9	57,766	136	99,399		
" 9	75,635	1,057	1,008,769			40,763		16,873		
" 10	31,074	669	1,141,890			30,313		58,276		
" 11	44,021		989,711			12,699		15,677		
" 12	29,309	14,721	978,183	20,526	9,286.94	11,739		7,475		
" 13	33,037	773	1,008,475	25,190	10,838					
" 14	379,820	345	1,013,396	9,400	23,567.8					
" 15	35,180	144	631,495	15,544	44,811.2	619				
Disposal Works			10,105						11,387.8	
Section 16			165,000							
" 17	287,470		328,560							
" 18	183,170	57,465			6,300				800	
Change of Van Buren Street Approach Span, Chicago River		2,800							784	

Southwest Boulevard Bridge, Main Channel, Section O..	.....	8,753.5	.....	.....	.....	.....	.....	.....	4,421.94	10.818
Panhandle Bridge, Main Channel, Section O.....	.....	23,000	.....	.....	.....	.....	.....	.....	14,360	29,600
Chicago, Madison & Northern R. R. Co.'s Bridge, Main Channel, Section N.....	.....	17,849	.....	.....	.....	.....	.....	.....	4,236.77	5,948
Chicago, Madison & Northern R. R. Co.'s Bridge, Kedzie Avenue, Section N.....	.....	1,909	.....	.....	.....	.....	.....	.....	595.69	.....
Kedzie Avenue Bridge, Main Channel, Section N.....	.....	7,101	.....	.....	.....	.....	.....	.....	2,886.84	.....
Atchison, Topeka & Santa Fe Ry. Co.'s Bridge, Main Channel, Section N.....	.....	7,445	.....	.....	.....	.....	.....	.....	2,489.36	4,544
Atchison, Topeka & Santa Fe. Ry. Co.'s Bridge, Main Channel, Section G.....	.....	85,253	.....	.....	.....	.....	.....	.....	2,929.03	5,748
Lyons-Summit Road Bridge, Main Channel, Section F..	.....	2,370	.....	.....	.....	.....	.....	.....	1,984	4,000
Lyons-Summit Road Bridge, Desplaines River, Section E.....	.....	5,557	.....	.....	.....	.....	.....	.....	793.3	.....
Chicago Terminal Transfer R. R. Co.'s Bridge, Main Channel, Section E.....	.....	4,748.1	.....	.....	.....	.....	.....	.....	2,162.79	1,166 5
Chicago Terminal Transfer R. R. Co.'s Bridge, Desplaines River, Section E.....	.....	972	.....	.....	.....	.....	.....	.....	652	1,000
Willow Springs Road Bridge, Main Channel, Section 1...	.....	2,084	.....	.....	.....	.....	.....	.....	598.6	400
Atchison, Topeka & Santa Fe. Ry. Co.'s Bridge, Main Channel, Section 8.....	.....	128,100	.....	1,020	.....	.....	.....	.....	817.07	.....
Lemont Road Bridge, Main Channel, Section 8.....	.....	2,006	.....	.....	.....	.....	.....	.....	460	.....
Romeo Road Bridge, Main Channel, Section 12.....	.....	.....	.....	153	.....	.....	.....	.....	1,082	.....
Lockport Road Bridge, Main Channel, Section 16.....	.....	.....	.....	326	.....	.....	.....	.....	460	.....
Wire Mills Road Bridge, Main Channel Section 16.....	.....	.....	.....	170	.....	.....	.....	.....	465	.....
Elgin, Joliet & Eastern R. R. Co.'s Bridge, between Sections 16 and 17.....	.....	.....	.....	.....	.....	.....	.....	.....	1,041.84	.....
Grand totals.....	27,018,210	1,070,199.6	12,622,942.1	118,118	379,249.54	1,419,025	382,314	258,659	62,737.03	95,019.5

RECAPITULATION.

	Glacial Drift Cubic Yards.	*Solid Rock.* Cubic Yards.
Main Channel, Prism.....	27,018,210	12,622,942.1
Main Channel, Outside Prism	1,070,199.6	118,118
River Diversion, Prism.....	1,419,025	258,659
River Diversion, Outside Prism.....	382,314	.....
Totals.....	29,889,748.6	12.999,719.1

Total Glacial Drift and Solid Rock.....	42,889,467.7	Cubic	Yards
Retaining Wall.....	379,249.54	"	"
Masonry and Concrete.....	62,737.03	"	"
Piles.....	95,019.5	Lineal	Feet
Including Revetment on Sections F, E and C....	229,555	Cubic	Yards
Including Slope Paving on Section 1	1,769	Square	Yards

SANITARY DISTRICT OF CHICAGO—ENGINEERING DEPARTMENT—EXHIBIT B, TABLE NO. 4.

CLASSIFIED SUMMARY OF CONSTRUCTION CONTRACT VALUES TO JANUARY 1, 1899.

Designation.	Main Channel.	River Diversion.	Bridges.	General.	Totals.
Chicago River Improvement	$ 311,657 01				$ 311,657 01
Section O	381,385 25		$ 60,966 46		442,351 71
Section N	256,993 92		3,444 78		260,438 70
Section M	158,015 06				158,015 06
Section L	218,106 38				218,106 38
Section K	295,187 79				295,187 79
Section I	289,846 00				289,846 00
Section H	317,660 19				317,660 19
Section G	398,703 08				398,703 08
Section F	343,322 74	$ 75,627 73			418,950 47
Section E	750,911 36	29,091 91	14,718 80	$ 260 00	794,982 07
Section D	592,039 29	2,880 54			594,919 83
Section C	443,342 59	40,135 18		781 63	484,259 40
Section B	438,986 42	59,451 34		150 00	498,587 76
Section A	801,584 08	115,741 73			917,325 81
Section 1	1,210,660 37	143,908 29	1,987 00	30 00	1,356,585 66
Section 2	877,695 00	63,190 86		90 00	940,975 86
Section 3	840,932 93	338 42			841,271 35
Section 4	975,248 98	83,304 43		85 25	1,058,638 66
Section 5	749,207 28	6,653 64			755,860 92
Section 6	686,282 00	55,911 37			742,193 37
Section 7	722,544 74	66,193 19		8,758 00	797,495 93
Section 8	898,777 09	89,683 90	19,853 89	2,580 06	1,010,894 94
Section 9	794,838 28	23,573 72	1,012 30		819,424 30
Section 10	921,454 79	78,729 58		8,952 33	1,009,136 70
Section 11	797,717 50	43,854 42			841,571 92
Section 12	837,660 69	21,768 52	1,120 78		860,549 99
Section 13	819,388 19				819,388 19
Section 14	931,457 10				931,457 10
Section 15	551,915 85	117 61			552,033 46
Disposal Works	252,393 25				252,393 25
Section 16	65,541 23				65,541 23
Section 17	297,681 31				297,681 31
Section 18	150,755 78				150,755 78
Miscellaneous Work Bet. Lockport and Joliet				50,193 74	50,193 74
Change of Van Buren Street Approach Span, Chicago River			19,495 87		19,495 87
Chicago Terminal Transfer Railroad Co.'s Bridge, Chicago River			25,333 33		25,333 33
Taylor Street Bridge, Chicago River			12,666 67		12,666 67
Southwest Blvd. Br., Main Channel, Sec. O			152,938 79		152,938 79
Panhandle Bridge, Main Channel, Sec. O			414,015 88		414,015 88
Chicago, Madison & Northern R. R. Co.'s Bridge, Main Channel, Sec. N			157,195 14		157,195 14
Chicago, Madison & Northern R. R. Co.'s Bridge, Kedzie Avenue, Sec. N			11,601 77		11,601 77
Kedzie Avenue Bridge, Main Channel, Sec. N.			42,930 78		42,930 78
Atchison, Topeka & Santa Fe Ry. Co.'s Bridge, Main Channel, Sec N			69,176 15		69,176 15
Atchison, Topeka & Santa Fe Ry. Co.'s Bridge, Main Channel, Sec. G			101,834 98		101,834 98
Atchison, Topeka & Santa Fe Ry. Co.'s Bridge, Desplaines River, Sec. F			19,321 80		19,321 80
Lyons-Summit Rd. Br., Main Channel, Sec. F.			37,837 40		37,837 40
Lyons-Summit Road Bridge, Desplaines River, Sec. E			12,978 77		12,978 77
Chicago Terminal Transfer Railroad Co.'s Bridge, Main Channel, Sec. E			47,269 81		47,269 81
Chicago Terminal Transfer Railroad Co.'s Bridge, Desplaines River, Sec. E			14,818 65		14,818 65
Willow Springs Rd. Br., Main Channel, Sec. 1.			22,818 52		22,818 52
Atchison, Topeka & Santa Fe Ry. Co.'s Bridge, Main Channel, Sec. 8			107,584 90		107,584 90
Atchison, Topeka & Santa Fe Ry. Co.'s Bridge, Desplaines River, Sec 8			21,962 03		21,962 03
Lemont Road Bridge, Main Channel, Sec. 8			21,058 74		21,058 74
Lemont Road Bridge, Desplaines River, Sec. 8			22,329 89		22,329 89
Western Stone Co.'s Bridge, Desplaines River, Sec. 10			15,983 63		15,983 63
Romeo Road Bridge, Main Channel, Sec. 12			24,649 75		24,649 75
Lockport Road Bridge, Main Channel, Sec. 16.			14,477 00		14,477 00
Wire Mills Road Bridge, Main Channel, Sec 16			14,761 30		14,761 30
Elgin, Joliet & Eastern R. R. Co.'s Bridge between Secs. 16 and 17			41,984 62		41,984 62
Totals for all work under Contract January 1, 1899	$19,379,913 52	$1,000,156 38	$1,550,130 18	$ 71,881 01	$22,002,081 [illegible]

EXHIBIT

y 1, 1899 — Q

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SANITARY DISTRICT OF CHICAGO—ENGINEERING

STATEMENT SHOWING CONDITION OF CONSTRUCTION

DESIGNATION.	Revised Approximate Estimate, Jan. 1, 1899.	AMOUNTS EARNED DURING 1898. Main Channel.	River Divers'n.	Bridges.	General.	Totals.	AMOUNTS Main Channel.
Chicago River Improvement	$ 311,657 01	$123,844 60				$ 123,844 60	$ 143,922 40
Section O	442,351 71	33,952 80		$ 18,340 47		52,293 27	332,615 11
" N	260,438 70	46,493 27		948 25		47,441 52	200,671 52
" M	158,015 06						158,015 06
" L	218,106 38						217,287 06
" K	295,187 79						287,299 54
" I	289,846 00						289,846 00
" H	317,650 19						289,531 06
" G	* 398,703 08	1,599 48				1,599 48	387,701 88
" F	† 418,950 47	66,332 27				66,332 27	336,978 72
" E	‡ 794,982 07	226,854 66		5,435 46		232,290 12	676,673 23
" D	594,919 83						592,089 29
" C	484,259 40	2,598 70	$ 1,938 99			4,532 69	443,342 59
" B	498,587 76						438,986 42
" A	917,325 81	4,371 11				4,371 11	801,584 08
" 1	1,356,585 66			7 00		7 00	1,210,660 37
" 2	940,075 86						877,695 00
" 3	841,291 35						840,952 93
" 4	1,058,038 66						975,348 98
" 5	755,860 92						749,207 28
" 6	742,193 37						686,282 00
" 7	797,495 93						722,544 74
" 8	1,010,894 94	2,520 00				2,520 00	888,834 43
" 9	819,424 30						794,838 28
" 10	1,009,136 70						921,454 79
" 11	841,571 92						797,717 50
" 12	860,549 99						837,660 69
" 13	819,388 19						819,388 19
" 14	931,457 10						931,457 10
" 15	552,033 46						551,915 85
Disposal Works	252,398 25	18,173 23				18,173 23	243,579 25
Section 16	65,541 23	38,631 23				38,631 23	38,631 23
" 17	297,681 31	86,164 21				86,164 21	86,164 21
" 18	150,755 78	19,158 58				19,158 58	19,158 58
Miscellaneous work between Lockport and Joliet	50,193 74				$32,140 89	32,140 89	
Change of Van Buren St. Approach Span, Chicago River	19,495 87						
C. T. T. R. R. Co.'s Bridge, Chicago River	25,333 33			8,444 45		8,444 45	
Taylor St. Bridge, Chicago River	12,666 67			4,222 22		4,222 22	
Southwest Boulevard Bridge, Main Channel, Sec. O	152,938 79			44,152 28		44,152 28	
Panhandle Bridge, Main Channel, Sec. O	§ 414,015 88			42,554 76		42,554 76	
C., M. & N. R. R. Co.'s Bridge, Main Channel, Sec N	157,195 14			109,125 84		109,125 84	
C., M. & N. R. R. Co.'s Bridge, Kedzie Av., Sec. N	11,601 77			4,726 00		4,726 00	
Kedzie Av. Bridge, Main Channel, Sec. N	42,930 78			32,794 18		32,794 18	
A., T. & S. F. R. R. Co.'s Bridge, Main Channel, Sec. N	69,176 15			51,603 70		51,603 70	
A., T. & S. F. R. R. Co.'s Bridge, Main Channel, Sec. G	101,834 98			45,287 36		45,287 36	
A., T. & S. F. R. R. Co.'s Bridge, Desplaines River, Sec. F	‖ 19,321 80						
Lyons-Summit Road Bridge, Main Channel, Sec. F	‖ 37,837 40			12,693 95		12,693 95	
Lyons-Summit Road Bridge, Desplaines River, Sec. E	12,978 77			12,978 77		12,978 77	
C. T. T. R. R. Co.'s Bridge, Main Channel, Sec. E	47,269 81			47,269 81		47,269 81	
C. T. T. R. R. Co.'s Bridge, Desplaines River, Sec. E	14,818 65			390 00		390 00	
Willow Springs Road Bridge, Main Channel, Sec. 1	22,818 52			7,918 52		7,918 52	
A., T. & S. F. R. R. Co.'s Bridge, Main Channel, Sec. 8	107,584 90			24,256 60		24,256 60	
A., T. & S. F. R. R. Co.'s Bridge, Desplaines River, Sec. 8	¶ 21,962 03			26,924 06		26,924 06	
Lemont Road Bridge, Main Channel, Sec. 8	21,058 74			5,693 39		5,693 39	

DEPARTMENT—EXHIBIT B, TABLE NO. 6.

CONTRACTS, JANUARY 1, 1899—VALUES.

EARNED TO JANUARY 1, 1899.				AMOUNTS REMAINING TO BE EARNED.			Reserved Percentages.	Unpaid Vouchers.	Amounts Required to Complete.
River Diversion.	Bridges.	General.	Totals.	Main Channel.	Bridges.	Totals.			
			$ 143,922 40	$167,734 61		$ 167,734 61	$ 17,272 21	$13,793 07	$ 198,799 89
	$ 60,234 30		392,849 41	48,770 14	$ 732 16	49,502 30	41,576 89	60 12	91,139 31
	3,444 78		204,116 30	56,322 40		56,322 40	24,982 69	1,320 80	82,625 89
			158,015 06						
			217,287 06	819 32		819 32			819 32
			287,299 54	7,888 25		7,888 25			7,888 25
			289,846 00						
			289,531 06	28,129 13		28,129 13			28,129 13
			387,701 88	11,001 20		11,001 20	164 50		11,165 70
$ 75,627 73			412,606 45	6,344 02		6,344 02	46,819 91	7,846 75	61,010 68
29,091 91	14,718 80	$ 260 00	720,743 94	74,238 13		74,238 13	87,874 45	11,652 70	173,765 28
2,880 54			594,919 83						
40,135 18		781 63	484,259 40						
59,451 34		150 00	498,587 76						
115,741 73			917,325 81						
143,908 29	1,987 00	30 00	1,356,585 66				6,179 83	715 83	6,895 66
63,190 86		90 00	949,975 86						
338 42			841,291 35						
83,304 43		85 25	1,058,638 66						
6,653 64			755,860 92						
55,911 37			742,193 37						
66,193 19		8,758 00	797,495 93						
89,683 90	19,853 89	2,580 06	1,000,952 28	9,942 66		9,942 66	315 00		10,257 66
23,573 72	1,012 30		819,424 30						
78,729 58		8,952 33	1,009,186 70						
43,854 42			841,571 92						
21,768 52	1,120 78		860,549 99						
			819,388 19						
			931,457 10						
117 61			552,033 46						
			243,579 25	8,814 00		8,814 00	11,389 20		20,203 20
			38,531 23	26,910 00		26,910 00	4,680 00	615 73	32,205 73
			86,164 21	211,517 10		211,517 10	10,732 75	16,479 75	238,729 60
			19,158 58	131,597 20		131,597 20	2,380 30	1,460 88	135,438 38
		50,193 74	50,193 74						
					19,495 87	19,495 87			19,495 87
	8,444 45		8,444 45		16,888 88	16,888 88			16,888 88
	4,222 22		4,222 22		8,444 45	8,444 45			8,444 45
	97,609 42		97,609 42		55,329 37	55,329 37	4,161 47	1,693 83	61,184 67
	$ 58,345 64		58,345 64		355,670 24	355,670 24			355,670 24
	128,729 54		128,729 54		28,465 60	28,465 60		2,806 08	31,271 68
	10,328 52		10,328 52		1,273 25	1,273 25	519 50	50 00	1,842 75
	34,404 78		34,404 78		8,526 00	8,526 00		13,354 14	21,880 14
	51,603 70		51,603 70		17,572 45	17,572 45		4,923 63	22,496 08
	81,418 98		81,418 98		20,416 00	20,416 00			20,416 00
					19,321 80	19,321 80			19,321 80
	12,693 95		12,693 95		25,143 45	25,143 45	756 76	1,237 16	27,137 37
	12,978 77		12,978 77				147 95	631 87	779 82
	47,269 81		47,269 81					322 38	322 38
	390 00		390 00		14,428 65	14,428 65	48 75		14,477 40
	7,918 52		7,918 52		14,900 00	14,900 00		1,881 02	16,781 02
	24,256 60		24,256 60		83,328 30	83,328 30	1,995 34	2,238 25	87,561 89
	26,924 06		26,924 06		—4,962 03	—4,962 03	350 00	10,440 06	5,828 03
	5,693 39		5,693 39		15,365 35	15,365 35	687 44	1,981 43	18,034 22

EXHIBIT B, TABLE

DESIGNATION.	Revised Approximate Estimate, Jan. 1, 1899.	AMOUNTS EARNED DURING 1898.					AMOUNTS
		Main Channel.	River Divers'n.	Bridges.	General.	Totals.	Main Channel.
Lemont Road Bridge, Desplaines River, Section 8	$ 22,329 89	.....	.....	.....	.....	.....	.....
Western Stone Co.'s Bridge, Desplaines River, Sec. 10	15,983 63	.....	.....	.....	.....	.....	.....
Romeo Road Bridge, Main Channel, Sec. 12	24,649 75	.....	.....	.....	.....	.....	.....
Lockport Road Bridge, Main Channel, Sec. 16	14,477 00	.....	.....	.....	.....	.....	.....
Wire Mills Road Bridge, Main Channel, Sec. 16	14,761 30	.....	.....	.....	.....	.....	.....
E., J. & E. R. R. Co.'s Bridge between Secs. 16 and 17	41,984 62	.....	.....	.....	.....	.....	.....
Totals	$ 22,002,081 09	$670,689 14	$ 1,938 99	$505,767 07	$32,140 89	$1,210,536 09	$18,589,885 3

* Charges against Weir, McKechney & Co., and not included in above figures, $230.00, account repairing levee.
† Charges against Weir, McKechney & Co. and not included in above figures, $1,476.69, account preparing
‡ Charges against Streeter & Kenefick, and not included in above figures, $5,020.02, for work done accoun
§ $5,602.52 of this account has been transferred to C., M. & N. R. R. Co.'s viaduct at Kedzie Avenue.
‖ Proportionate cost to the Sanitary District.
‖ Charges against Halvorson, Richards & Co., not included in above figures, $2,258.64, for work account Sum
¶ Proportionate cost to the Sanitary District.

NO. 6—*Continued.*

EARNED TO JANUARY 1, 1899.				AMOUNT REMAINING TO BE PAID.			Reserved Percentages.	Unpaid Vouchers.	Amounts Required to Complete.
River Diversion.	Bridges.	General.	Totals.	Main Channel.	Bridges.	Totals.			
.....	$ 22,329 89	.....	$ 22,329 89	.....	.....	.....	.....	.....	.....
.....	15,983 63	.....	15,983 63	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	$ 24,649 75	$ 24,649 75	.....	.....	$ 24,649 75
.....	.....	.....	.....	.....	14,477 00	14,477 00	.....	.....	14,477 00
.....	.....	.....	.....	.....	14,761 30	14,761 30	.....	.....	14,761 30
.....	41,984 62	.....	41,984 62	.....	.....	.....	.....	.....	.....
$1,060,156 38	$795,902 34	$71,381 01	$20,457,825 09	$790,028 16	$754,227 84	$1,544,256 00	$263,034 94	$95,505 48	$1,902,796 42

section for Gahan & Byrne's contract; $12.65 account strengthening levee; $272.55 account moving conveyor. flood damages. Charges against Angus & Gindele, $524.20, account strengthening levee.

mit Permanent Road.

SANITARY DISTRICT OF CHICAGO—ENGINEERING DEPARTMENT—EXHIBIT B,

TABLE NO. 7.

FURTHER WORK CONTEMPLATED BUT NOT CONTRACTED FOR.

Chicago River Improvement, Including Bridges, Etc.	$ 354,231 00	
Railroad and Highway Bridges	165,520 00	
Capitalization of Bridges figured on the basis of the revised agreements permitting the construction of Movable Bridges, which shall be accepted as fixed structures until required to be opened for navigation	267,389 00	
Contingency Fund, 10 per cent, of work not yet contracted for	51,975 10	
Total work yet to be contracted for, including capitalization of bridges	$ 839,115 10	
Total work now under contract	22,002,081 09	
Total estimated cost of construction, including capitalization of bridges		$22,841,196 19
Expenditures for Engineering, Superintendence, Etc., to January 1, 1899	$ 1,223,266 23	
Extimated cost of Engineering, Superintendence, Etc., to complete work on basis of twelve months to do the same	120,000 00	
Total estimated cost of Engineering, Superintendence, Etc.		1,343,266 23
Total estimated cost of Construction, Engineering, Superintendence, Etc.		$24,184,462 42
Amount paid account Construction to January 1, 1899	$20,099,284 67	
Amount paid account Engineering, Superintendence, Etc., to January 1, 1899	1,222,092 82	
Amount paid and chargeable to Sundry Contractors	9,794 75	
Total amount paid account Construction, Engineering, Superintendence, Etc. and Contractors		$21,331,172 24
Balance required to complete work of Engineering Department		$ 2.853,290 18

SANITARY DISTRICT OF CHICAGO—ENGINEERING DEPARTMENT—EXHIBIT C.

COMPARATIVE ESTIMATES OF QUANTITIES IN COMPLETED SECTIONS OF MAIN CHANNEL PRISM.

SECTION.	DESIGNATION.	CUBIC YARDS.	PERCENTAGE.
C	Advertised Estimate	1,717,000	92.78
	Assistant Engineer's Estimate	1,853,324	100.15
	Seymour's Remeasurement	1,858,175	100.41
	Final Estimate	1,850,493	100.00

NOTE—The comparative estimate of quantities in all the other completed sections appears in the last Annual Report on pages 4649-51.

CANCELLATION OF BOND OF JAMES REDDICK AS CLERK OF THE DISTRICT.

Mr. Carter, Chairman, presented, and the Clerk read, a report from the Committee on Finance recommending that the Clerk be directed to cancel the bond of Mr. James Reddick as Clerk of the District and notify said Reddick and his sureties of this action.

Mr. Carter, seconded by Mr. Jones, moved that the report be adopted and the recommendations contained therein concurred in.

The motion prevailed unanimously and it was so ordered.

The following is

THE REPORT:

"CHICAGO, May 17th, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Under date of March 1st, 1899 (page 5502 of the Proceedings), your Committee on Finance reported that the books of the Clerk and Treasurer were found to be correct, upon examination by expert accountants.

In view of said report, your Committee recommends that the Clerk be directed to cancel the bond of Mr. James Reddick, as Clerk of the District, filed with the Board of Trustees at the meeting held December 24, 1895 (page 3041 of the Proceedings); and notify said Reddick and his sureties of this action.

Respectfully submitted,

(Signed) Z. R. CARTER,
Chairman.

B. A. ECKHART,

FRANK WENTER,

ALEX. J. JONES,

Committee on Finance."

APPROVAL OF REDUCED BOND ON CONTRACT FOR SUPERSTRUCTURE OF A., T. & S. F. BRIDGE NEAR EAST END OF SECTION G.

Mr. Carter, Chairman, presented, and the Clerk read, a report from the Committee on Finance, in regard to the approval of the bond in the sum of $2,000, furnished by the Carnegie Steel Company (Limited), on the contract for the superstructure of the A., T. & S. F. Bridge near east end of Section G, in lieu of the original bond on said contract, and in accordance with the action of the Board at the meeting held April 12, 1899 (page 5628 of the Proceedings), the report recommending that said bond be approved by the Board of Trustees.

Mr. Carter, seconded by Mr. Wenter, moved that the report be adopted, and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Braden, Carter, Eckhart, Mallette, Smyth and Wenter—six. Nays—Mr. Jones—one.

Upon this result the Chairman declared the motion carried.

The following is

THE REPORT:

"CHICAGO, May 16, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago.

GENTLEMEN—The Committee on Finance desires herewith to report that a bond in the sum of two thousand dollars ($2,000.00) has been executed by the Carnegie Steel Company (Limited), of Pittsburg, Penna., with the City Trust, Safe Deposit and Surety Company of Philadeldhia as surety thereon.

That the Board of Trustees, at the meeting held on the 12th day of April, A. D. 1899, (page 5628 of the Proceedings) authorized that the bond originally filed by said company, with its contract for the work upon the superstructure of the Atchison, Topeka & Santa Fe Railroad Company Bridge on Section "G," be reduced and that a bond in the sum above mentioned be accepted in lieu thereof. The Committee finds that said bond is in proper form and that the surety thereon is sufficient.

The Committee, therefore, recommends that said bond, as herewith submitted, be approved by the Board of Trustees.

Respectfully submitted,

(Signed) Z. R. CARTER,
Chairman.

B. A. ECKHART,

FRANK WENTER,

Committee on Finance."

(Accompanied by bond in duplicate.)

APPROVAL OF BOND ON CONTRACT FOR SUB AND SUPERSTRUCTURE OF RAILROAD BRIDGE CROSSING THE CHICAGO RIVER NEAR TAYLOR STREET, AND RETURN OF CERTAIN CHECKS.

Mr. Carter, Chairman, presented, and the Clerk read, a report from the Com-

mittee on Finance in reference to the approval of the bond of the Pensylvania Steel Company on the contract for the construction of the sub and superstructure of the railroad bridge crossing the Chicago River near Taylor street, in the City of Chicago, in accordance with the action of the Board at the meeting held May 3, 1899 (page 5671 of the Proceedings), the report being accompanied by said contract and bond in duplicate, and recommending that said bond be approved by the Board of Trustees.

Mr. Carter, seconded by Mr. Eckhart, moved that the report be adopted and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Braden, Carter, Eckhart, Jones, Mallette, Smyth and Wenter—seven. Nays—none.

Upon this result the Chairman declared the motion carried.

In the same connection Mr. Carter, seconded by Mr. Braden, moved that the checks received April 26, 1899, with bids on the aforementioned structures and not heretofore returned, be returned to the respective bidders.

The motion prevailed unanimously and it was so ordered.

The following is

THE REPORT.

"CHICAGO, May 16, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—The Committee on Finance, to whom was referred, at the meeting of the Board of Trustees on May 3, 1899 (page 5671 of the Proceedings), the acceptance of the bond to be executed by the Pennsylvania Steel Company, of Steelton, Pennsylvania, upon its contract for the double-track rolling lift bridge crossing the South Branch of the Chicago River, between Taylor and Twelfth streets, in the City of Chicago, desires to report herewith that it has examined said bond and finds that the same is in proper form, and that the surety thereon is sufficient.

The Committee, therefore, recommends that the said bond, as herewith submitted, be approved by the Board of Trustees.

(Signed) Z. R. CARTER, *Chairman.*
B. A. ECKHART,
FRANK WENTER,
ALEX. J. JONES,
Committee on Finance."

(Accompanied by contract and bond in duplicate.)

The following is

THE CONTRACT:

"SANITARY DISTRICT OF CHICAGO.

Contract and specifications for the substructure and superstructure of the double track rolling lift bridge, of the Scherzer type, crossing the south branch of the Chicago River between Taylor street and Twelfth street in the City of Chicago, to be built for the use of the Chicago Terminal Transfer Railroad Company.

THIS AGREEMENT, Made and entered into this fifteenth day of May, A. D. 1899, by and between the Sanitary District of Chicago, of the first part, and Pennsylvania Steel Company, a corporation organized and existing under the laws of the State of Pennsylvania, of the City of Steelton in the State of Pennsylvania, of the second part.

A—

WITNESSETH: That the said party of the second part has covenanted, contracted and agreed, and by these presents does covenant, contract and agree with the said party of the first part, for the consideration of the payments to be made as provided for herein, to the said party of the second part by the said party of the first part, and under a penalty expressed in a bond bearing even date herewith, at his own proper cost and expense to do all the work and to furnish all material, tools, labor, and all appliances and appurtenances called for by this agreement, in the manner and under the conditions hereinafter stipulated, that are necessary to the complete doing of the work known and distinguished by the specifications herein contained, and the plans accompanying them, as the double-track Rolling Lift Bridge for the Chicago Terminal Transfer Railroad Company, crossing the South Branch of the Chicago River

between Taylor street and Twelfth street in the City of Chicago.

B—

It is further covenanted, contracted and agreed, that the work shall be executed under the direction and supervision of the Chief Engineer of the Sanitary District of Chicago, and his properly authorized agents, by whose measurements and calculations the quantities and amounts of the several kinds of work performed under this contract shall be determined, and on whose inspection all work shall be accepted or condemned. The said Chief Engineer and his properly authorized agents shall have full power to reject or condemn all materials furnished or work performed under this contract which do not fully conform to its spirit and to the terms and conditions herein expressed; and the Chief Engineer shall decide every engineering question which may arise between the parties hereto relative to the execution thereof and his decision shall be final and binding upon both parties. Wherever reference is made to the Chief Engineer of the Railroad Company, the Chief Engineer of the Chicago Terminal Transfer Railroad Company is meant.

C—

The Scherzer Rolling Lift Bridge Company and the Chief Engineer of the Railroad Company will examine and check the shop plans for this bridge and will also supervise its construction and erection, so that the same may be constructed in conformity with the designs, plans and specifications of the Scherzer Rolling Lift Bridge Company. All shop plans and all work and material must be approved in writing by the Scherzer Rolling Lift Bridge Company, in addition to the approval of the Chief Engineer.

D –

Wherever the words "Sanitary District" are used in this contract they shall be understood to mean the Sanitary District of Chicago as represented by the Board of Trustees of the Sanitary District, or their duly authorized and accredited agents.

Wherever the words "Chief Engineer" or "Engineer" are used herein they shall be understood to mean the Chief Engineer of the Sanitary District of Chicago, or his properly authorized agents, limited by the particular duties intrusted to them.

Wherever the word "Contractor" is used herein it shall be understood to mean the person or persons or co-partnership or corporation entering into the contract as party of the second part.

The following ordinance passed by the Board of Trustees of the Sanitary District of Chicago, June 23d, 1897, is hereby made a part of this contract, and the party of the second part agrees to comply with its provisions, and in case of violation thereof, to be subject to the penalties therein authorized to be imposed:

"*Be it ordained by the Board of Trustees of the Sanitary District of Chicago:*

"SECTION 1. That in the preparation of all future specifications for contracts for the construction of the Main Channel and auxiliary works, the Engineering Department shall provide that such contracts shall be executed in conformance with the law constituting eight (8) hours a legal day's work in all contracts under the Sanitary District of Chicago, and that in the employment of labor contractors shall be required and specifically agree to give preference to union labor.

"SEC. 2. That all contracts hereafter executed for the works of the Sanitary District of Chicago shall contain provisions constituting eight (8) hours a legal day's work, and forbidding the employment of any employe or employes for a longer period than eight (8) hours in any twenty-four (24) hours, and that said contract shall vest specific authority in the Police Department of the Sanitary District of Chicago to exercise supervision for the enforcement of this provision, and shall provide that the Board of Trustees of the Sanitary District of Chicago shall be empowered in all cases of violation of said eight (8) hour law, to deduct and retain from any money accruing to said contractors a sum as liquidated damages at the rate of five dollars ($5.00) per hour for each employe who shall be required to work in excess of eight (8) hours per day by any contractor on said Canal."

SPECIFICATIONS FOR SUBSTRUCTURE.

The accompanying drawings form part of these specifications. The figured dimensions on the drawings are to be taken whenever they do not agree with the dimensions obtained by scaling from such drawings.

QUALITY OF MATERIAL.

Stone.

1. The stone used shall be either Pon-

toosiac, Anamosa, Bedford stone, or an equally good stone, the quality subject to the approval of the Chief Engineer. It shall be sound and durable, free from drys, shakes or flaws, and of a character that will withstand the action of the weather. All stone must be quarried without the excessive use of explosives, and shall be taken out whenever practicable by the use of plug and feather. It shall be quarried in time to season against frost before being used.

Cement.

2. The best Portland and natural cements shall be used on this work, brand and quality to be subject to the approval of the Chief Engineer. The weight per cubic foot of Portland cement shall be not less than one hundred (100) pounds, and for natural cement shall be not less than sixty-seven (67) pounds. The development of tensile strength for Portland cement shall be not less than four hundred (400) pounds per square inch, and for natural cement not less than one hundred (100) pounds per square inch, after being exposed one (1) day in air and six (6) days in water. All lumpy, dirty or damaged cement shall be rejected; also damaged or short weight packages.

Sand.

3. The sand used shall be coarse, clean and sharp, free from all clay, loam or gravel, and shall be well screened and of a quality approved by the Chief Engineer.

Mortar.

4. When Portland cement mortar is used for beds and joints, it shall be mixed in proportions of one (1) part of cement to three (3) parts of sand. When mortar is used for facing pits and for grout it shall be mixed one (1) part cement and two (2) parts sand. When it is used for pointing one (1) part cement and one (1) part sand.

Piles.

5. Piles to be of white or burr oak, sound and straight, not less than fourteen (14) inches at the butt and not less than nine (9) inches at the small end, with uniform taper.

Timber.

6. Timber used in foundations and pier protections shall be white oak, sound, straight and free from wind shakes.

Sheet Piling.

7. Sheet piling and bracing may be of any timber suitable for the purpose and shall be of such dimensions and placed as directed by the Engineer.

CLASS OF WORK.

Excavation.

8. All foundations shall be prepared to receive the masonry by the Contractor, who shall make excavation to such a depth and width as directed by the Engineer. The Contractor shall also, where necessary, supply and operate, free of cost, all pumps in order to keep the foundation excavation dry. The Contractor shall provide, drive, frame and place all sheet piling or other timber work necessary to the successful excavation and protection of the foundation excavation, and shall maintain the same until masonry shall have been built. All material except such as shall be needed for filling back of and around the masonry shall be removed entirely from the right of way and lands of the Railroad Company and disposed of as the contractor may see fit, free of all cost or expense to the said Railroad Company or to the Sanitary District of Chicago; but no material so excavated shall be deposited in the Chicago River or any navigable waters, save as permitted by the proper authorities of the United States Engineer Department. All refilling ordered by the Engineer shall be done without extra cost to the Sanitary District.

Foundation Piles.

9. All piles must be driven by a steam hammer, unless otherwise directed by the Engineer. If in the opinion of the Engineer, any pile proves imperfect or becomes unfit for use under the hammer, or is not driven straight or plumb, it must be removed by the contractor without extra cost. If so directed by the Engineer, the piles shall have the bark removed. Should any of the piles raise or change their position after being driven, they shall, if so directed by the Engineer, be redriven at the expense of the contractor. All piles must be cut level and at proper elevation. Payment for piles to be on the following basis: 1st: Per lineal foot for all piles delivered, on the order of the Engineer, at the site of the work. 2nd: For all piles driven, per lineal foot below the cut-off line, the prices designated on the bid.

Foundation Timber.

10. Payment for timber used to be per one thousand (1,000) feet B. M., in the completed

work, as called for by the bills of material given by the Engineer, which bills shall cover the waste ordinarily incident to framing. All materials (coffer dams, sheet piling, piles, rubbish, etc.) not required in the finished structure shall be removed by the contractor without extra cost, as directed by the Engineer.

Portland Cement Concrete.

11. Concrete shall be made in the proportion of one (1) part of cement, three (3) parts of sand and six (6) parts of broken stone. It shall be mixed by machinery, if so directed by the Chief Engineer, or if mixed by hand it shall be done upon a suitable platform. Care must be taken to first thoroughly mix the dry cement and sand, after which stone shall be added, together with a proper amount of water, all to be thoroughly mixed; water to be applied by a sprinkling pot. On being placed, the concrete shall have a wetness such as to permit quaking or mobility likened to liver. The stone for concrete of a quality approved by the Engineer, broken into angular pieces of a size small enough to pass through a ring two (2) inches in diameter, and be entirely free from dust, sand, dirt and any foreign substance. The stone must be thoroughly drenched with clear water before mixing with the mortar. The concrete is to be deposited in layers not exceeding six (6) inches in thickness, as directed by the Engineer, and to be thoroughly tamped or rammed.

Natural Cem nt Concrete.

12. Concrete shall be made in the same manner as specified above for Portland cement concrete, except that the proportion shall be one (1) part cement, two and one-half (2½) parts sand and five (5) parts of broken stone.

Masonry.

13. All masonry shall consist of pitched draft, rock-faced work, built in regular courses, no course to be less than twelve (12) or more than thirty (30) inches in vertical height, and in no case shall a course overlie one of less thickness. The rock face shall not project less than one (1) or more than three (3) inches beyond the pitch-line joints.

14. Abutments and piers shall have chiseled draft two (2) inches in width on corners only. The stone shall be rectangular in form. No stretcher shall be less than three (3) or more than six (6) feet long, and the upper or lower bed shall be of a width not less than one and one-half (1½) times the vertical height.

15. Headers must not be less in length than four (4) feet or three (3) times the thickness of the course when the width of the wall will admit of it; and always at least one and one-half times the vertical height.

16. All stones must be laid on their natural beds, the largest bed down; the beds well dressed, parallel and true, and as large as the stone will admit of. The beds and sides of the stones to be cut before being laid, so as to form joints not exceeding one-half (½) inch in thickness.

17. The joints shall be horizontal and vertical, and the vertical joints shall break not less than twelve (12) inches. Vertical joints shall be dressed close for at least twelve (12) inches back from the face.

18. The masonry will consist of headers and stretchers alternately; at least one-fourth (¼) of each course shall be headers. They shall be arranged so as to overlie a stretcher in the course below, and the headers and backing shall be arranged so as to form a bond throughout the masonry; no break to be less than twelve (12) inches.

19. All masonry must be neatly pointed with cement mortar, finely tempered. No masonry shall be covered until it has been inspected and approved by the Chief Engineer, and any defective work shall be removed and rebuilt by the Contractor at his own expense.

20. All stone must be moistened before being laid and before any succeeding course is placed upon it.

21. No spalls shall be used in horizontal joints.

22. All coping must be dressed and set level and to exact elevation given by the Engineer. Care must be used in handling stone not to injure the joints of those already laid; and in case a stone is moved after being set and the joint broken, the stone must be taken out, the mortar thoroughly cleaned from the beds and joints, and the stone reset. Masonry and backing to be laid in good full beds of mortar, the face stones of each course of masonry brought to a bearing with a wooden mall, and the interior of each course thoroughly jointed and leveled off before the next course is started.

23. Masonry shall not be laid in freezing

weather without written permission from the Chief Engineer. Any masonry so laid in freezing weather shall have joints raked out and pointed in the spring at the expense of the Contractor. Should masonry be laid in freezing weather, the stone shall be sufficiently warmed to remove all ice from surface, and the mortar mixed with brine, made by dissolving one (1) pound of salt to eighteen (18) gallons of water when the temperature is thirty-two (32) degrees Fahrenheit, adding one (1) ounce of salt for each degree the temperature is below thirty-two (32) degrees.

Pointing.

24. All masonry shall be pointed, so as to fill the joints solid. The surface of the wall to be scraped clean and the joints freed of all mortar to a depth of one and one-half (1½) inches, and refilled solid by using proper ramming tools. Joints must be well wet before pointing.

Cramps.

25. Cramps shall be of such number and dimensions as shown on plan; these cramps to be fitted into the course after it is laid and to be countersunk; and all the holes shall be filled with grout made of Portland cement after the cramps are inserted. The cost of furnishing and placing these cramps shall be included in the price bid per cubic yard for masonry.

Protection.

26. The large corner clumps of the protections shall be of forty (40) foot oak piles securely bound together with five (5) laps of three-quarter (¾) inch chain, spiked all around with six by one-fourth (6x¼) inch wrought iron spikes. The piles in front and flank aprons will be of oak forty (40) feet long and spaced as shown. Caps to be twelve by twelve (12x12) inch oak, and wales of eight by twelve (8x12) inch oak, all secured as shown.

Measurement.

27. Measurement of all masonry shall be by the cubic yard, and payments shall be made upon the actual cubical contents of the completed masonry within the lines as shown on plan.

Air-Pipe.

28. The contractor will furnish and put in place in a channel across the river as shown upon drawing No. 1, at a point 26 feet below datum, a 8-inch XX galvanized iron air pipe substantially parallel with the bridge, to be constructed, as herein specified, on the north side thereof from the east dock line of the Chicago River to the west dock line of said river, including all angles, L's and connecting joints and the vertical portion of pipe from a point 26 feet below datum to the top of dock on each side of river.

SPECIFICATIONS FOR SUPERSTRUCTURE.

Work Included.

1. The work to be done under this contract consists in furnishing all materials and labor and erecting complete in place, ready for operation, the superstructure, operating machinery, houses, etc., locks, electrical equipment, ties and guard rails, with necessary spikes, bolts and washers, as well as all iron and steel in the substructure for the above proposed bridge.

Specifications.

2. The General Specifications for Steel Railroad Bridges and Viaducts, by Theodore Cooper, 1896 Edition, shall govern in regard to quality of material, proportion of parts, general details of construction, workmanship, painting, erection and inspection and in all other respects, except in the changes and additions herein specified.

General Plans.

3. The structure shall be built in accordance with the general plans accompanying these specifications, which general plans shall be considered a part of these specifications. These general plans shall be carefully checked by the Contractor before beginning work. Should any errors be discovered, the Chief Engineer's attention shall be called to the same and corrections made, after which the Contractor shall be responsible for all errors which may occur, or which may have occurred.

Shop Plans.

4. All shop plans shall be made by and at the expense of the Contractor and shall be submitted to the Chief Engineer of the Railroad Company for approval before beginning work. Such shop plans shall have a uniform size of twenty-six (26) inches by forty (40) inches, inside border lines, with a border margin of one-half (½) inch. When submitted for approval one complete set of prints of such shop plans shall be sent to the Sanitary District of Chicago and one complete set to the Scherzer

Rolling Lift Bridge Company. The Contractor shall furnish the Sanitary District of Chicago with six complete sets and the Scherzer Rolling Lift Bridge Company with two complete sets of blue prints of these approved plans, free of cost. No alterations of approved plans will be permitted to be made by the Contractor without the written consent of the Chief Engineer. The approval of the Chief Engineer will not relieve the Contractor from the responsibility of errors thereon.

QUALITY OF MATERIAL.

Wrought Iron.

5. All iron used for rivets shall have an ultimate tensile strength of not less than forty-eight thousand (48,000) pounds per square inch, an elastic limit of at least twenty-six thousand (26,000) pounds per square inch, and an elongation of at least twenty (20) per cent in eight (8) inches, and be so ductile that when bent cold through one hundred and eighty (180) degrees and hammered down flat on itself, it shall show no sign of fracture on convex side of curve.

Steel.

6. All steel shall be uniform in quality and made by the "Open Hearth" process.

Structural Steel.

7. All structural steel shall be medium steel, uniform in quality, and shall be made by the "Open Hearth" process. Tests shall be made upon pieces cut from the finished material, and shall be not less than one-half (½) square inch in sectional area. Two (2) pieces, one (1) for tensile test. and one (1) for bending test, shall be furnished from each blow or cast, and so selected that each heat or furnace full of billets, blooms or slabs shall be represented by at least one (1) test to prove the condition of the metal after reheating, rolling, etc. When tested in specimens as above, medium steel shall have an ultimate tensile strength of from sixty thousand (60,000) to sixty-eight thousand (68,000) pounds per square inch, an elastic limit of not less than thirty-six thousand (36,000) pounds per square inch, shall elongate not less than twenty-five (25) per cent. in eight (8) inches, and show a reduction of area at point of fracture of not less than forty (40) per cent. The test piece must also bend cold one hundred and eighty (180) degrees around a curve whose diameter is equal to the thickness of the piece without crack or flaw on convex side of bend. A hole punched for a three-quarter (¾) inch rivet, one and one-half (1½) inches from the edge of plate, shall be capable of being enlarged by drifting to one and one-eighth (1⅛) inches in diameter without sign of fracture.

Rivet Steel.

8. Rivet steel shall have an ultimate strength of fifty thousand (50,000) to fifty-eight thousand (58,000) pounds, and an elastic limit of not less than fifty-five (55) per cent. of the ultimate; an elongation of not less than twenty-seven (27) per cent. and must bend one hundred and eighty (180) degrees flat on itself without sign of fracture on the convex side of the bend.

Rivets.

9. All hand driven rivets, whether shop or field, shall be of the best quality of rivet iron, as specified.

10. Specimens taken from all grades of steel, after being heated to a light cherry red (as seen in the dark) and quenched in water of eighty-two (82) degrees Fahrenheit, must conform to the bending requirements above.

Chemical Analysis.

11. The chemical analysis for carbon and phosphorus of each blow or cast must be furnished to the Engineer, or his inspectors, before any of the material rolled from said blow or cast is shipped from the mill. Phosphorus must not exceed eight one-hundredths (.08) per cent. for acid steel, or six one hundredths (.06) per cent. for basic steel.

Chippings and Alterations.

12. All blooms, billets or slabs shall be examined for surface defects, flaws or blow holes before being rolled into the finished sections, and such chippings and alterations made as will secure perfect solidity in the finished sections.

Marking.

13. The original blow or cast number must be painted or stamped on all blooms, billets or slabs, in order to identify the material throughout the various processes of manufacture; and the original blow or cast number, together with the furnace heat number, must be stamped on each piece of finished material from said blow or heat.

Finish.

14. All finished, rolled material must present a smooth, clean surface, free from

buckles, flaws, cracks, ragged edges or any other defects, and must be straight throughout and true to section.

Brittle Steel.

15. No steel which proves brittle shall be used under any circumstances; if it develops this character at any stage of its manufacture, it shall be at once condemned and other material used. The object of the more particular clauses, hereto relating, being to guard against the possibility of the use of this class of metal.

Steel Castings.

16. All steel castings shall have an ultimate strength of not less than sixty-two thousand five hundred (62,500) pounds per square inch, an elastic limit of not less than thirty thousand (30,000) pounds per square inch, shall elongate not less than fifteen (15) per cent. in eight (8) inches and show a reduction at point of fracture of not less than 20 per cent. The amount of phosphorus contained shall not exceed eight one-hundredths (.08) per cent. All steel castings shall be sound and free from blow holes and roughness, sponginess, pitting, shrinkage-cracks and other cracks, cavities, etc., and shall be thoroughly annealed according to the best practice. Each cast shall be so made that sufficient number of test pieces can be cut as to enable the Engineer or Inspector to satisfy himself of its quality.

Machinery Steel.

17. The materials used for shafting and forgings, except where otherwise specified, shall be of "medium" basic or acid Open Hearth steel, of a good finish and uniform quality, in which phosphorus shall not exceed six one-hundredths (.06) per cent., and sulphur five one-hundredths (.05) per cent. When tested in specimens of not less than one-half square inch section, it must show an ultimate strength of sixty thousand (60,000) to sixty-eight thousand (68,000) pounds per square inch, with an elastic limit of at least forty-eight (48) per cent. of the ultimate, and an elongation of at least twenty-five (25) per cent. in eight (8) inches, and it must bend, cold, one hundred and eighty (180) degrees over a diameter equal to its thickness.

Phosphor Bronze.

18. Phosphor bronze shall be of the best quality for the purpose for which it is to be used. The castings shall contain eighty-eight (88) per cent. of copper and twelve (12) per cent. of phosphorized tin; the phosphorized tin to contain five (5) per cent. of phosphorus. Upon each casting shall be cast suitable test pieces, which, in breaking, must show a good uniform metal, and when broken in testing machine shall show at least forty thousand (40,000) pounds ultimate tensile strength.

Babbit Metal.

19. All the babbit metal used shall have the following composition: Fifty (50) parts tin; one (1) part copper; five (5) parts antimony.

Counter Weight.

20. The counter weight blocks may be of sash weight, or any other metal equally as good. They must be smooth and true to dimensions, within one-fourth (¼) inch, and free from cracks and blow holes.

Live Load.

21. The live load used in calculations shall be five thousand (5,000) pounds per lineal foot of track, plus a concentrated weight of fifty thousand (50,000) pounds on any part of each track.

WORKMANSHIP.

Character of Work.

22. More than ordinary care must be taken to have all workmanship strictly first-class. The bearings for all shafts must be set to a true line, parallel, and the proper distance between centers. No shimming will be allowed. All bolt holes for connection to the structure of any part of the work to be done under these specifications must be drilled in the field, and all bolts must be turned to a driving fit. All shafting must be turned, care being taken to leave proper fillets at points where the diameter is reduced. All parts of the machinery shall be so designed as to be readily removed and replaced by new parts.

Nut Locks.

23. Positive nut locks for all bolts shall be furnished, subject to the approval of the Chief Engineer of the railroad company.

Gear Wheels.

24. All gear wheels must be bored to closely fit their axles or shafts, and properly keyed to the same. They shall be of cast steel as herein specified, and one duplicate of

each different gear shall be furnished by the Contractor, if ordered by the Chief Engineer, at the price per pound named in the bids.

Bearings.

25. All bearings, unless otherwise shown on plans, shall be babbitted. The bearings for the thrust blocks to be faced and fitted tight.

Oil Cups.

26. Proper provision must be made for oiling all bearings, using oil-cups that will be acceptable to the Chief Engineer.

Irregularities.

27. Any irregularities that may occur in the teeth of the gear or rack castings must be chipped to template.

Wrenches.

28. Suitable wrenches to fit the nuts of all bolts shall be furnished by the Contractor without extra charge.

Track Girders.

29. The web plates and all diaphragms and top cover plates of the "track girders" must be faced on top; the cast steel track plate must get perfect bearing on them. The cast steel track plate must be planed on top and bottom and the projecting teeth on all four sides to true width and pitch.

Segmental Girders.

30. The segmental girders, with their track plates and the several posts connecting to them, must be assembled in the shop and all rivet holes reamed to proper size and all pieces properly marked before taking them apart. The web plates of these segmental girders, side plates, and the angle flanges must be faced absolutely true to the circle called for and out of wind. The track plates must be faced on top, bottom and ends to get a perfect bearing on them an also present a true circular surface on the outside. The square holes in the track plates which engage with the teeth on the track girders must be cut out to exact pitch, and the width must be such that the lateral play is not more than ⅛ inch. The end of the track plates must be straight and true to afford a perfect bearing on the track girders.

Operating Struts.

31. The operating struts must be perfectly true and straight for their full length. The cast steel rack forming a part of them must be planed on both sides and both ends and on the edges at the sides of the teeth to the height of the pitch line and riveted up so that the pitch is uniform and the pitch line absolutely straight. The pin holes must be bored exactly at right angles with the center lines of the strut and parallel with the center line of the teeth.

ELECTRICAL EQUIPMENT.

Locks.

32. The center lock shown on Sheet 6-C-12 consists of a long tongue fastened between the members of each lower chord of the West leaf extending into the members of the lower chord of the East leaf and resting on a diaphragm fastened between the members of the East leaf. It also consists of a short extension of the members of the lower chord of the East leaf resting on brackets fastened to the members of the West leaf. In operating the bridge the East leaf will be lowered first to a position in which the West leaf brackets will clear the East leaf extension within a few inches; then the West leaf will be lowered until its tongue touches the East leaf diaphragm, after which both leaves will come down together. Indicators must be provided which will show the position of each leaf during operation to each operator, day and night.

There shall be two rear locks for each leaf of the bridge located and attached as shown on Sheet 6-D-9. The rear locks are applied by gravity and opened by solenoids, each solenoid to have a lifting capacity of four hundred (400) pounds over and above the weight of their iron cores and locks, and a stroke of about six (6) inches.

The locks must be operated from the operators' houses by independent switches, permitting the operator to open the locks when the operating struts are forcing the bridge down and keep the locks open when the bridge is opened. The rear lock of the West leaf must be fitted out with submarine electric connections to be operated in the manner described above from either of the two operators' houses. Indicators must be provided which show the position of the locks to the operators. day and night, and the position of the rear lock at the West leaf must be indicated in the same manner to the operator at the East side.

Brakes.

33. Each leaf of the bridge shall be provided with a band brake, the wheel of which shall be made of cast steel, the face to be turned. The brake band shall be of steel, lined with vulcanized fibre. The brake shall

be worked by electric power, braking automatically when the current operating the bridge is cut off. One duplicate band brake shall be furnished by the contractor. An auxiliary hand-lever band brake shall be provided for each leaf, with levers, rods, etc., so arranged that the brake may be operated from the operators' houses. The brake shall be located as shown on Sheet 6-D-9.

Motors.

34. Each leaf of the bridge shall be operated by two electric motors, located and attached as shown on Sheet 6-C-9. These motors shall be of the railway type, series wound, single reduction, multipolar, with four salient poles, water-proof, with steel frame and iron-clad armature; to have a capacity of fifty (50) H. P. at normal speed and 220 volts, and to be capable of carrying an over-load of 33⅓ per cent for half an hour, or 50 per cent for five minutes, without injurious heating. The armature speed to be not more than 600 revolutions per minute when fifty (50) H. P. is being delivered by the motor at 220 volts. With each motor shall be furnished a cut pinion and gear with a reduction of about 1-3. A removable gear case shall be furnished with each motor. The motor gears shall be attached to the four and one-half (4½) inch driving shaft, shown on Sheet 6-C-9. A coupling shall be provided on this driving shaft, as shown, so that one of the motors may be thrown out of use at will. The Contractor shall furnish one extra armature, field coil, pinion and split gear, without extra charge.

Pumps and Auxiliary Motors.

35. Two pumps and two electric motors for operating such pumps shall be furnished by the Contractor and placed one on each side of the river. They shall be of such size and capacity as to pump the counter-weight wells, if filled with water, dry in one hour. They shall meet the approval of the Chief Engineer and of the Scherzer Rolling Lift Bridge Company.

Controllers.

36. One (1) controller, to be placed in each operating house to govern the main operating bridge motors, shall be of the reversible type, fitted with a device for blowing out, and shall be capable of varying and maintaining the speed of the two (2) motors from slow speed at the starting point to a maximum speed when full on, without sparking and without shock or jar. It shall be of ample carrying capacity to transmit for one-half (½) hour without heating thirty-three and one-third (33⅓) per cent above the normal amount required by the motors at full load, or transmit for five (5) minutes fifty (50) per cent above the normal amount required by the motors. The controllers shall be so arranged that the motors may be operated singly or together. An additional controller, fulfilling the same requirements, shall be provided and placed in the operating house on the east side of the river, and so connected by submarine cables, switches, etc., as to be able to control the leaf of the bridge on the west side of the river. Care shall be taken to place the long tongue of the center lock on the west leaf of the span.

Wiring and Cables.

37. All wiring from the end of the supply wire on the switchboard in the operating house on the station side, or east side of the river, shall be furnished by the contractor. All wiring between the switchboards, motors, signals and lights, except the wiring within the operating houses, shall be rubber covered and put up securely on porcelain insulators. Between the switchboards in the operating houses shall be furnished iron armored submarine cables of sufficient insulation and capacity to carry safely the necessary current in strength and frequency to perform the various operations of the motors, locks and brakes as designated above. An additional submarine cable capable of carrying a current for fifty (50) arc lamps shall be provided by the contractor. All this work to be subject to the approval of the Chief Engineer of the Railroad Company, and of the Scherzer Rolling Lift Bridge Company.

A three (3) inch XX galvanized iron submarine air pipe must be furnished and placed with the electric cables for the operation of the signals and switches of the Chicago Terminal Transfer Railroad Company.

Lights.

38. In each of the operators' houses on each side of the river shall be placed five (5) sixteen (16) candle power lights, and ten (10) additional lights with waterproof sockets shall be placed on each side of the river about the machinery at such points as will be designated by the Scherzer Rolling Lift Bridge Company. Proper signal lights and day signals to control navigation must also be provided.

Cut-Outs

39. An automatic circuit breaker shall be placed between each feeder and the switchboard. Each submarine cable, each line to motors, each line to solenoids, and each lighting circuit shall be protected by suitable cut-outs, adapted to two hundred and twenty (220) volts and the load of the motor.

Switches and Boards.

40. Suitable switches shall be provided for each motor circuit and for each supply wire. The switches to be of ample carrying capacity for their respective loads, and to be mounted on a suitable switchboard, which shall be placed in a convenient position in each operator's house.

General.

41 All switches, cut-outs and buttons shall be suitably named and labeled, as directed, indicating their office. A voltmeter, equal to the Weston in quality, shall be placed in the operators' house on the switchboard. The Contractor shall also provide and place on the switchboard one (1) ammeter reading to nine hundred (900) amperes, and one (1) fifty thousand (50,000) ohm magneto testing bell.

Operators' Houses, Stairways, Etc.

42. On each side of the river, located as shown on general plan, Sheet 6-B-11, shall be built and secured in place an operators' house, to be of such general dimensions and appearance as shown on Sheet 6-C-22. All stairways and walks from the operating house to the machinery, and from the machinery to the ground or floor of the bridge shall be provided and placed to the approval of the Chief Engineer of the railroad company and of the Scherzer Rolling Lift Bridge Company.

Patterns.

43. All patterns for castings shall be the property of the Chicago Terminal Transfer Railroad Company, and shall be delivered by the Contractor where directed by the Chief Engineer of the said company.

Extra Inspection.

44. Should the preparation of the material for this structure be widely distributed, or should unneccessary delays in getting out the same, or delay in the required date of final completion occur, the cost of extra inspection shall be borne by the Contractor; the Chief Engineer being sole judge of what is deemed extra inspection.

Maintenance.

45. The Contractor will be required to make good all defective material or workmanship which shall develop within the first twelve (12) months after the bridge shall have been completed and put into service. He shall be required to execute a bond in the sum of twenty thousand ($20,000) dollars for the faithful performance of this before receiving a final payment of his contract.

Duplicate Castings.

46. The Contractor must furnish such duplicates of the finished castings, as directed by the Chief Engineer, at the price per pound named in the bids.

Painting.

47. Painting in shop shall be as specified by Cooper's specifications. The paint to be used, as per Articles No. 141 and No. 142, Cooper's specifications, shall be "Superior Graphite Paint." manufactured by the Detroit Graphite Manufacturing Company. Inaccessible surfaces, such as the inside of the track and segmental girders shall receive three (3) coats of this paint before leaving the shop. No paint shall be applied in a wet or freezing weather.

Camber.

48. The trusses of the bridge shall be given such a camber that, under the full live-load, the floor of the bridge will be perfectly level.

Name Plates.

49. Two (2) name plates sixteen by twenty-six (16x26) inches shall be furnished by the Contractor. These plates shall bear the following inscription: "Invented by William Scherzer, C. E. Patented, December 26th, 1893. Designed by the Scherzer Rolling Lift Bridge Company, Chicago, Illinois." Two (2) additional plates shall be inscribed as directed by the Chief Engineer. All plates to be placed on the structure as directed by the Chief Engineer.

Shipping.

50. All parts shall be carefully loaded so as to avoid injury in transportation and shall be at the Contractor's risk until erected and ready for the rails. All screw ends shall be wrapped with twine before shipment. All pins and small parts must be securely boxed and the boxes plainly marked. The weights

of large pieces must be marked on them. The invoices shall state the contents of each box and the weight and description of each piece that is not boxed, and three copies of each invoice shall be furnished the Sanitary District of Chicago.

Erection.

51. The Contractor shall furnish all staging and false work, shall erect and adjust all the metal work, shall furnish and put in place all floor timbers, timber guards, and place and secure in place all masonry bolts. The Contractor shall so conduct all his operations as not to impede the operations of the roads or interfere with the work of other contractors, or close any thoroughfare by land or water, except by written consent of the Chief Engineer. The Contractor shall assume all risks of accidents to men or material prior to the acceptance of the finished structure. The Contractor must also remove all false work, piling and other obstructions, or unsightly material produced by his operations.

Final Acceptance.

52. Any material or workmanship which does not satisfy the requirements of these specifications may be rejected by the Chief Engineer or by the Scherzer Rolling Lift Bridge Company at any time before the final acceptance of the work, and the Contractor shall make good all deficiencies at his own cost. The fact that the authorized inspectors have accepted said material or workmanship shall not make the Sanitary District liable for extra cost above that specified in the contract for replacing same with material or workmanship accepted by the Chief Engineer on final acceptance.

GENERAL CONDITIONS.

Changes in Plans.

53. The amount of masonry and other quantities figured from the plans are approximate, and the Sanitary District reserves the right to make alterations in the line, grade, plan, form or dimensions of the work herein provided for, either before or after beginning the construction thereof; provided, that if alterations are made the general character of the work as a whole is not thereby changed. If such alterations diminish the quantity of work to be done, they shall not constitute a claim for damages nor for anticipated profits on the work tha may be dispensed with; if they increase the amount of work, such increase shall be paid for according to the quantity of work actually done, and at prices and rates established for such work under this contract. Notice of change of plan must be given to the Contractor in writing, and it is expressly agreed that no alterations or additions or extra work are to be paid for unless directed in writing.

Extra Work.

54. All claims for extra labor or material furnished by the Contractor, or for damages from any cause whatever, must be reported to the Engineer at the time such labor or material are furnished or such damages occur, and they must also be presented to him in writing at the end of the month: provided, that nothing shall be paid for as extra work that can be classified under any of the heads upon which prices are fixed by this contract. Whenever work is required to be done which is not now contemplated or covered by the prices hereinafter given, the Engineer, under direction of the Engineering Committee, shall fix such prices for the work as they shall consider just and equitable, and the Contractor shall abide by such prices, provided he enters upon such work with a full knowledge of the prices so fixed; but if the contractor declines executing said work at the prices fixed by said Committee, then the Sanitary District may enter into contract with any person or perso s for its execution the same as if this contract had never existed; and if extra work or work not provided for in this contract, is performed by the Contractor before prices have been fixed for such work, then the Engineer shall estimate the same at such prices as he shall deem just and reasonable, and his decision shall be final, and the said Contractor shall accept such prices in full satisfaction of all demands against the Sanitary District for said extra work; provided, that if the extra work done under this contract is of such a nature, being distinct from other work being done by said Contractor, that the actual cost of the same can be determined, then the said contractor shall receive, and the Sanitary District shall pay, in full satisfaction for the same, the actual cost of the work with fifteen (15) per cent added. Provided, further, that nothing shall be deemed extra work which can be measured or estimated under the provisions of this contract.

Responsibility of Contractor.

55. It is further agreed that in all engineer-

questions or disputes arising or growing out of this contract in any way regarding the cost or value of extras, variations, allowances, deductions, or the amount of damages in any engineering question growing out of the violation of this contract, the decision of the Engineer shall be final and binding on both parties hereto. All work provided for in this contract is to be done under the direction and supervision of the Chief Engineer and his properly authorized agents. The Contractor is to be guided by the lines, stakes, marks and grades given by them, and is to carefully preserve the same as far as possible during the progress of the work, and is to furnish all needed facilities, without charge therefor, to enable the Engineer to properly give lines and grades and to measure the work from time to time. All work will be subject to inspection by the said Engineer and his said agents, and if not in accordance with the requirements of this contract, is to be made good by the Contractor. The Contractor will be responsible for the entire work until completed and accepted by the Sanitary District. The Contractor will be required to give his personal attention to the fulfillment of this contract and to the execution of the work. He is to keep the same under his control, and will not be allowed to sublet all or any part of it; it being distinctly understood and agreed that the subletting of the work covered by this contract, or any part thereof, shall, after thirty (30) days' notice, work a forfeiture of the contract, at the option of the Sanitary District.

The contractor will not be allowed to assign, by power of attorney or otherwise, any portion of the moneys that may become due through the workings of this contract. In case the Contractor fails to comply with the provisions of this contract as to progress and character of work, he shall be duly notified in writing, and thirty (30) days after the giving of said notice, the party of the first part may declare this contract forfeited, if there is a substantial failure to comply with its provisions.

The Contractor shall conform to all the ordinances of the City of Chicago and the regulations imposed by the United States Government in any manner affecting this work, and he will release the Sanitary District of Chicago from all responsibility for loss or damage occasioned by delays or inconveniences due to the navigation of the river by vessels of any sort or description or for other causes not now foreseen.

Tools

56. The contractor is to furnish all the tools of every description, including, pumps, cars and tracks, necessary to the full and complete carrying out of this contract, and on completion of the work, is to remove all tools, buildings and material of all kinds from the site of the bridge.

Precautions.

57. Whatever precautions may be necessary to render any portion of the work more secure in any respect, or to decrease the liability of accident from any cause, or to avoid contingencies which are liable to delay the completion of the work, shall be taken by the Contractor.

Workmen.

58. The Contractor shall employ competent foremen and laborers, and shall discharge, at the request of the Engineer, any incompetent or unfaithful men in his employ. None but men expert in their respective branches of work will be employed where special skill is required, and in the employment of men preference shall be given to union laborers. It is especially understood and agreed that eight (8) hours shall constitute a day's work, and that no workman shall be employed or required to work more than eight (8) hours out of any twenty-four (24) hours, and no work in excess of that time shall be allowed. In the event of any violation of the above eight (8) hour provision, it is agreed hereby that the said District shall, and that it is duly authorized to, retain from any money due, or to become due, at any time from it to the second party, as liquidated damages, the sum of five (5) dollars per hour for each hour that any employe shall be required to work in excess of eight (8) hours per day, pursuant to the terms and conditions of the ordinance adopted June 23, 1897, attathed hereto.

Patents.

59. It is further agreed that the second party shall indemnify, keep and save harmless said first party from all liabilities, judgments, costs, damages and expenses which may in any wise come against said first party, or which may result on account of any infringement of any patent by means of the use of any materials, machinery, device or apparatus used in the performance of this contract, or of the designs furnished by second

party and accepted by the Sanitary District, except the patents owned by the Scherzer Rolling Lift Bridge Company, and in the event of any claim or suit or action at law or equity of any kind whatsoever being made or brought against said first party, then first party shall have the right to retain a sufficient amount of money in the same manner and upon the same conditions as hereinafter in the next following clause of this contract provided.

Damages.

60. If any damage shall be done by the Contractor or by any person or persons in his employ to the owner or occupants of land, or to any property adjoining or in the vicinity of the work herein contracted to be done, or to a neighboring contractor, the Engineer shall have the right to estimate the amount of said damage, and to cause the Sanitary District to pay the same to the said owner or occupant, and the amount so paid for said damages shall be deducted from the money due said Contractor, under said contract. Said Contractor covenants and agrees to pay all damages for any personal injury sustained by any person growing out of any act or doing of himself, or his employes, that is in the nature of a legal liability, and he hereby agrees to indemnify and to save the Sanitary District harmless against all suits or actions of every name and description brought against the said Sanitary District for, or on account of, any such injuries, or such damages received or sustained by any person or persons, by or from said Contractor, his servants, agents or employes, in the execution of said work; or by or in consequence of any negligence in guarding the same; or by or on account of any omission or act of said Contractor, his agents or employes; and the said Contractor further agrees that so much of the money due him under and by virtue of this contract, as shall be considered necessary by the Board of Trustees of the Sanitary District, may be retained by the said Sanitary District until such suit or claim for damages, as aforesaid, shall have been settled, and evidence to that effect furnished to the satisfaction of the said Board of Trustees.

Time.

61. The Contractor agrees to begin the work covered by this contract within fifteen (15) days after said contract shall have been executed, and to prosecute the building thereof so as to complete the same on or before January 1, 1900.

Prices.

62. In consideration of the said work being carried on and completed in the time and manner hereinbefore specified, the said party of the first part agrees to pay to the said party of the second part the following amounts, and the said party of the second part agrees to receive and accept the same as full compensation for the performance of the work, including the furnishing of the materials, tools, labor, etc., to-wit;

(*a*) For each cubic yard of excavation, price to include all necessary refilling and back filling, fifty hundredths dollars ($.50).

(*b*) For sheet piling and bracing in place, per one thousand (1,000) feet B. M., (price to cover all spikes, bolts or other iron to be used in constructing same), as per terms of this contract, the sum of thirty-four dollars ($34).

(*c*) For timber in foundations and pier protections, per one thousand (1,000) feet, B. M., (price named to cover all spikes, bolts or other iron to be used in constructing same), as per terms of this contract, the sum of forty-four dollars ($44).

(*d*) For piles delivered at the site of the work, as specified, per lineal foot, the sum of eighteen hundredths dollars ($.18).

(*e*) For piles driven in foundation and pier protections, as specified, per lineal foot, the sum of thirty hundredths dollars ($.30).

(*f*) For each cubic yard of natural cement concrete, as specified, the sum of three and eighty-five hundredths dollars ($3.85).

(*g*) For each cubic yard of Portland cement concrete, as specified, the sum of five and seventy-five hundredths dollars ($5.75.)

(*h*) For each cubic yard of completed stone masonry, per the terms of this contract, the sum of thirteen dollars ($13).

For air pipe laid complete, as per specification, one thousand dollars ($1,000).

(*i*) For the superstructure complete, including operating machinery, locks, electrical equipment, etc., necessary to operate this bridge, as specified, and all iron and steel in the substructure, as specified, the sum of two hundred and fourteen thousand five hundred dollars ($214,500).

(*k*) For extra medium or soft steel erected

in place, the sum of four and three-quarter cents ($4\frac{3}{4}$c) per pound.

(*l*) For extra iron castings erected in place, the sum of four and one-quarter cents ($4\frac{1}{4}$c) per pound.

(*m*) For extra cast steel for superstructure, erected in place, the sum of eight and one-half cents ($8\frac{1}{2}$c) per pound.

(*n*) For extra steel castings for machinery, erected in place, the sum of ten and one-half cents ($10\frac{1}{2}$c) per pound.

(*o*) For extra phosphor bronze, erected in place, the sum of thirty cents (30c) per pound.

(*p*) For extra counter-weight block castings, erected in place, the sum of two cents (2c) per pound.

The prices proposed must include all royalties for patents or patented material and appliances used in the construction of the work described in the specifications and agreements; and before final payment is made the Contractor shall furnish a satisfactory guarantee against all claims; provided, however, this does not apply to the patented design of the bridge of the Scherzer Rolling Lift Bridge Company, the right to use the same having been purchased by the Sanitary District.

Time and Manner of Payment.

63. It is agreed by the party of the first part that on or before the 10th and 25th days of each month during the progress of the work and subject to the provisions hereinbefore specified under the head of "Time," payment will be made to the said party of the second part to the amount of eighty-seven and one-half ($87\frac{1}{2}$) per cent of the contract price of the sub-structure of the approximate amount of work done during the previous half month, upon written certificate from the Engineer that such approximate amount of work has been done during that period; twelve and one-half ($12\frac{1}{2}$) per cent being reserved until the completion and acceptance of the whole work. It is agreed by the party of the first part that when the entire iron work shall have been delivered at the site of erection, payment shall be made by the party of the second part to the amount of sixty (60) per cent of the contract price of the superstructure, upon written certificate from the Engineer that such approximate amount of work has been done. The remaining forty (40) per cent to be paid within thirty (30) days after the completion of the work and its acceptance by the party of the first part.

Certificate.

64. Upon the completion of the substructure in accordance with the specifications and contract, to the full satisfaction of the Chief Engineer, and upon the inspection of same and the issuance of the final certificate by the Chief Engineer, the said party of the first part agrees to pay to the said party of the second part the amounts shown to be due to said second party by the said certificate of said Chief Engineer, including the twelve and one-half ($12\frac{1}{2}$) per cent reserved. Upon the completion of the superstructure in accordance with the specifications and contract, to the full satisfact on of the Chief Engineer, and upon the inspection of same and the issuance of the final certificate by the Chief Engineer, the said party of the first part agrees to pay to the said party of the second part the amount shown to be due to the said party of the second part by the said certificate of the said Chief Engineer.

Failure to Complete.

65. It is further agreed by the said party of the second part that if the work to be done under this contract on the substructure shall be abandoned, or if it shall be assigned by him, or if he loses control of the work from any cause, excepting acts of God and the public enemy, or if the rate of progress is not such as to insure its completion within the time specified, or if at any time the Engineer shall be of the opinion, and shall so certify in writing to the said party of the first part, that said work, or any part thereof, is unnecessarily and unreasonably delayed, or that the Contractor is willfully and persistently violating any of the conditions or covenants of this contract, or is not fulfilling said contract in good faith, the said party of the first part shall have the power to notify the said Contractor to discontinue all work, or any part thereof, as may be designated by the said party of the first part, and the said party of the first part shall thereupon have the power either to complete said work by contract or to employ such men and teams and to obtain such machinery, implements and tools, and to purchase such material as the said Engineer may deem necessary to complete the work herein described, or any part thereof. And, in so doing, said Engineer may use such tools, implements and materials as may be found upon the line of said work. The cost of doing such work by the said Engineer shall be charged to the said Contractor,

and the expense so charged shall be deducted and paid by the said party of the first part out of such moneys as may be due, or may at any time thereafter become due, to said Contractor, under and by virtue of this contract, or any part thereof, so far as the same shall suffice therefor; and the balance, if any, shall be paid by said Contractor on demand. Should there be a failure by the second party to deliver said iron work of the character and strength herein provided for at the time herein specified, or if, after delivery of same as herein provided, said Contractor should fail financially, either before or after having been paid the sixty (60) per cent of the contract price as hereinbefore provided, and be unable to carry out said contract and complete said work, then, in that case, the said party of the first part shall have the power to complete said work by contract or otherwise, at its discretion, and charge up the cost of so completing the said work to said Contractor. Should the amount remaining unpaid of the contract price not suffice therefor, then said Contractor and his bondsmen shall be held liable for the deficiency. If at any time during the progress of said work, the said Contractor shall fail or neglect to pay for labor performed or material furnished upon said work for ten (10) days after it shall have become due, then the party of the first part shall have power to pay for such labor or for materials, tools, explosives, machinery, appliances, fuel, provisions or supplies of any sort or kind used or consumed in, upon or on account of the work covered by this contract; the party of the first part shall have the power to pay for such labor or materials, explosives, machinery, appliances, fuel, provisions or supplies of whatsoever sort or kind, out of moneys that may be due to said Contractor, and said amount so paid shall be retained out of any money due or to become due to said Contractor. In any such case the party of the first part is hereby authorized and empowered by the party of the second part to ascertain by its Engineer the amounts due or owing from said Contractor to any laborer or laborers, or to any person or persons, for materials, tools, explosives, machinery, appliances, fuel, provisions or supplies of any sort or kind consumed upon, in or on account of the work covered by this contract in such manner and upon such proofs as the said Engineer may deem sufficient.

Contractor's Bond.

66. The Contractor shall furnish a bond in the sum of thirty-five thousand ($35,000) dollars for the substructure and superstructure of this bridge, with good and sufficient sureties, the same to be satisfactory to the Board of Trustees of the Sanitary District, conditioned upon the faithful performance of all the terms and conditions of this contract; and should the sureties on said bond at any time fail financially, or be, in the opinion of the said Board of Trustees, insufficient security for the penalty of said bond, then, in that case, they may, on giving ten (10) days notice thereof in writing, require said Contractor to furnish a new and additional bond in the place of the bond so having become insufficient or worthless.

Final Payment.

67. The said party of the second part further agrees that he shall not be entitled to demand or receive final payment for any portion of the aforesaid work or materials except in the manner set forth in this agreement, nor until all of the stipulations hereinbefore mentioned are complied with, and the said Chief Engineer shall have given his certificate to that effect; whereupon the said party of the first part will, at the expiration of thirty (30) days after such completion and delivery of such certificate, pay, and it hereby binds itself to pay, the said party of the second part, in cash, the whole amount of money accruing to said second party under this contract, excepting such sum or sums of money as may be lawfully retained under any of the provisions of this contract hereinbefore set forth. Provided, that nothing herein contained shall be construed to affect the right hereby reserved of the said party of the first part to reject the whole, or any portion, of the aforesaid work should the said certificate be found to be inconsistent with the terms of this agreement or otherwise improperly given.

IN WITNESS WHEREOF, on the day and year first above written, the said Sanitary District of Chicago has caused this agreement to be signed by its President and attested by its Clerk, and its corporate seal to be hereto affixed, and the said party of the

second part has hereunto set.....hand and seals.....

The Sanitary District of Chicago.

By

.....

President.

Attest :

.....

[SEAL] *Clerk.*

(Signed)

The Pennsylvaina Steel Co.

[SEAL] By E. C. FELTON,

President.

Attest:

[SEAL] EBEN F. BARKER,

Secretary.

All erasures made before the delivery of the foregoing contract.

The Pennsylvaina Steel Co.

By the Q. & C. Co.

C. F. QUINCY,

President.

CHARLES C. GILBERT,

Attornery, Sanitary District of Chicago."

ADJOURNMENT.

On motion of Mr. Wenter, seconded by Mr. Mallette, the Board then adjourned.

Joseph F. Haas

Clerk.

PROCEEDINGS

—OF THE—

BOARD OF TRUSTEES

—OF THE—

SANITARY DISTRICT OF CHICAGO.

MAY 24, 1899.

OFFICIAL RECORD.

Published by authority of the Board of Trustees of the Sanitary District of Chicago.

REGULAR MEETING.

The four hundred and thirty-ninth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Wednesday, May 24, 1899, at 2 o'clock P. M.

On roll-call Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter — nine members, were present.

President Boldenweck then called the Board to order.

MINUTES.

The minutes of the regular meeting held May 17, 1899, were approved as printed on motion of Mr. Kelly, seconded by Mr. Braden.

*VOUCHERS.

The Clerk presented the following vouchers :

ENGINEERING DEPARTMENT.

G. M. Wisner (expense)		$ 30 21

LAW DEPARTMENT.

Jacobs, Coles & Co. (stationery)	$ 2 00	
Edwards & Hancock (stationery)	25 45	

The Gunthorp-Warren Printing Company (engraving)	$ 10 50	
Edward Thompson Company (law book)	6 00	
Callaghan & Co. (Illinois Reports)	11 75	
Edward D. Conley (printing)	23 10	
Edward D. Conley (printing)	47 70	
Chicago Law Institute (membership assessment)	14 00	
Haley & O'Donnell (court fees)	10 30	
D. Barrett & Co. (livery)	28 50	
D. Barrett & Co. (livery)	84 25	
D. Barrett & Co. (livery)	332 50	
Obadiah Hicks (witness fees)	100 00	
George R. Berriman (legislative bills)	50 00	
John J. Keig (services)	81 50	
The Joliet Times (publishing notice)	134 00	
George Hingston (stenographic fees)	141 15	
Frank Vander Bogart, Clerk (fees)	144 40	
John P. Wilson (legal services)	750 00	
Geo. F. Blake Manufactursng Company (costs)	36 50	
Charles C. Gilbert (expense)	449 62	
		$ 2,483 22

LAND ACCOUNT.

Chas. C. Gilbert (Will County taxes)		15 41

GENERAL ACCOUNT.

Joseph F. Haas, Clerk (sundry expense)		274 73

CONSTRUCTION ACCOUNT.

Heldmaier & Neu (Romeo Highway Bridge)	$ 1,618 75	
Wisconsin Bridge and Iron Company (Wire Mills Road Bridge)	5,367 00	
Wisconsin Bridge and Iron Company (Lockport Road Bridge)	6,572 40	
Christie & Lowe (Bear Trap Dam sundries)	231 90	
C. T. T. R. R. Co. (Section E, temporary bridge)	115 84	
C. T. T. R R. Co. (Section O, Pan Handle temporary bridge)	100 00	
Geo. M. Huss (Section O, Pan Handle permanent bridge)	392 00	
Isham Randolph (Section N, Southwest Boulevard Bridge)	116 00	
Isham Randolph (Section N—C., M. & N. Bridge)	169 20	
Dolese & Shepard (Section N—C., M. & N. Bridge)	48 50	
Empire Portland Cement Company (Section N—C., M. & N. Bridge)	132 50	
American Bridge Works (Section 15, Bear Trap Dam)	63 06	
		$14,927 15
Grand total		$17,730 72

* To be paid by warrants, with interest coupons attached, drawn against the Tax Levy for 1899.

Mr. Carter, seconded by Mr. Jones, moved that the vouchers as read and shown above be approved and ordered paid.

On roll call the vote stood: Yeas—Messrs. Boldenweck Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—nine. Nays—none.

Upon this result the President declared the motion carried.

WEEKLY REPORT ON EMPLOYES.

The Clerk presented a report, in accordance with the rules, showing the number of persons in the employ of the District for the week ending May 20, 1899, which was read and by unanimous consent was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, May 24, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the week ending May 20, 1899, as the same have been reported to me:

Engineering department	79
Maintenance account	8
Clerical department	5
Law department	8
Treasury department	1
Police department	28
General	3
Total employes	132

Respectfully submitted,

(Signed) JOSEPH F. HAAS,

Clerk."

MONTHLY REPORT FROM ENGINEERING DEPARTMENT.

The Clerk presented a report from the Engineering Department for the month of April, 1899, which, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, May 22, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I herewith transmit the report of the Engineering Department for the month of April, 1899, giving the detailed operations of the several divisions constituting the same.

The value of the construction work done was $99,774.51, divided as follows: Main Channel, $85,502.43; bridges, $14,272.08. The engineering expenses were $8,967 35, divided as follows: Salaries, $8,350.90; supplies, etc., $616.45. Details of the above figures are given in tabulated statements submitted herewith.

DIVISION OF CONSTRUCTION.

The weather during the month was favorable to good progress. No rain was recorded and the temperature varied from 26 degrees to 76 degrees Fahrenheit.

Chicago River Improvement—Very little work was accomplished at the Adams Street By-pass owing to the flood of the 7th of the month, which was occasioned by a leak under the center pier of the bridge. This caused a delay of about two weeks. Excavation is practically completed. The quantities vouchered for the month are as follows: 1,200 cubic yards of excavation; 105,900 feet B. M. of timber; 600 cubic yards of concrete.

The contractors removed one 7x10 inch hoisting engine and elevator with cars, and about 200 feet of track from Adams street and installed same at Jackson street. One 7¾ x 10-inch steam pump was also removed to that point. The new plant installed at Jackson Street is as follows: One boiler, 4 feet 2 inches x 13 feet with thirty-six 2-inch flues; one hoisting engine, 7x10 inch cylinders, with elevator and scaffold for same. There is also on the ground one boiler, 3 feet 8 inches, by 9 feet, which was not set up during the month. The quantities vouchered for the Jackson Street work are: 200 cubic yards of excavation, and 12,000 feet B. M. of timber. Lydon & Drews' dredge No. 2 worked during the entire month dredging the South Branch, and 70,300 cubic yards of material were vouchered to them. On the 15th, a voucher for $3,270.38 was issued to the Lydon & Drews Company for pumping out and repairing the coffer-dam at Adams Street.

The C. T. T. R. R. Co. had a pile driver and crew at work most of the month, building pile abutments and center pier for the temporary foundation for its bridge at Taylor Street, to be used while the District constructs the new bridge at

that point. This work is being watched by an Inspector of the Sanitary District.

Section "*O*"—Work on the Southwest Boulevard Bridge was continued all the month, but the bridge is still incomplete. Some force-account stone cutting was done on this bridge, occasioned by some slight changes in the original plans. Macadamizing of approaches to this bridge was begun on the 24th and continued throughout the month.

The contractors for the eight-track bridge began excavation on the 24th. The larger part of the month was spent in erecting camp buildings. The different railroad companies at this point did more or less work on their tracks, and a force of interlocking repairmen worked on the changes incidental to the change in location of the P., C., C. & St. L. Ry. tracks. Work on the new trestles for the P., C., C. & St. L. Ry. Co. was continued, pile driving was finished on the 18th, and the entire structure was nearly completed at the end of the month. The vouchers issued on account of temporary bridge work are as follows:

C. T. T. R. R. Co.	$ 72 26
C. T. T. R. R. Co.	100 00
C. J. Ry. Co.	3,772 85
Continental Bolt & Iron Works	29 36
Halvorson, Richards & Co.	20 07
The Marsh and Bingham Co.	130 77
Continental Lumber Company.	1,191 84

Section "*N*"—The shovel and incline plant began work on the 17th of the month and quit on the 20th, owing to the bad condition of the tracks, and considerable time was spent in repairing same. The excavated material was placed on the Southwest Boulevard, south of the river. The moving of the incline plant to the south side of the Channel was finished and the plant put in operation on the 25th, working day shifts only, to the end of the month. The work of excavating the Kedzie Avenue temporary roadway on force account was begun on the 8th, a team force working from that time to the end of the month. The Gray & Drake patent excavator was put in operation during the month, but apparently was not a success and was removed from the plant.

The back filling of the south abutment of the C., M. & N. R. R. Co.'s Bridge across the Main Channel was begun on the 10th. On the 24th it was found that the back filling had forced the end of the long wing wall out of place about eight (8) inches, and the work was stopped. Braces were put in to hold the wall and a gang of men put to work to excavate the back filling. A derrick was installed, the wall taken down and arrangements made to rebuild same, making it three feet wider than before. The painting of the superstructure of this bridge was begun on the 12th and continued throughout the month. On the 22nd a voucher for $144.96 was issued to the C., M. & N. R. R. Co. for money paid by it for the temporary use of land during the construction of the new alignment of said company.

The bridge of the C., M. & N. R. R. Co. across Kedzie Avenue was decked and painted between the 11th and the 15th.

The Kedzie Avenue Bridge over the Main Channel was painted between the 24th and the 26th, and the approaches to the same were repaired with broken stone and screenings on the 26th and 27th, and the bridge was then opened for traffic.

Work on the superstructure of the bridge of the A., T. & S. F. Ry. Co. was continued during the entire month, and finished with the exception of painting.

Section "*K*"—The approaches to the temporary trestle for the Belt Railway of Chicago were filled in by team force between the 14th and the 23rd. A final voucher for this work, amounting to $114.29, was issued to Geo. M. Huss on the 10th. On the 5th, a voucher for $1,072.07 was issued to the Home Lumber Company for the furnishing of lumber for this trestle.

Section "*I*"—A small force was employed during part of the month taking down the last of the bridge conveyors.

Section "*H*"—A pump was installed on this section on the 11th, and the dam on the upper stream side having been strengthened, the water was pumped out of the unfinished portion of it.

Section "*G*"—A dam was constructed at Station 362 to protect the unfinished portion of this section, and a small team force worked about eight days during the month on this account.

On the 17th, the work of surfacing the tracks of the A., T. & S. F. Ry. Co. was resumed, and on the 19th, the rails were cut, and connection was made with the new deviation. The first train went over the new line at 11:00 A. M. The work of surfacing the new roadbed and taking up the rail and ties from the new roadbed continued to the end of the month. The following vouchers were issued to the A., T. & S. F. Ry. Co. on

account of this bridge: Capitalization voucher, $33,207.60; for work and material furnished during March, 1899, $2,258.96.

Section "F"—The work of pointing up the pier and abutments of the substructure for the Lyons-Summit Road Bridge was finished on the 12th. The substructure is now complete, but the coffer-dam around the center pier is not yet removed. The plant used in the construction of the substructure was removed. The work on the superstructure of this bridge was resumed on the 15th and continued to the end of the month.

Section "E" — Rock excavation by Peteler car and traveling derrick plants was continued all the month. A portion of the plant used on the section was removed. The quantities vouchered on account of this work are as follows: 9,150 cubic yards of solid rock; 15,809 cubic yards revetment wall. A voucher for $97.00 was issued to the C. T. T. R. R. Co. on account of its temporary bridge across the Desplaines River, and one for $33.57 was issued to this same company on account of its permanent bridge across the Main Channel.

No work was done on the permanent bridge of the C. T. T. R. R. Co. over the Desplaines River. The three old spans of this bridge which were raised on blocking by the contractors last December fell all together at 11:30 A. M. of April 30th, and each are at present laying with one end in the bottom of the river and the other resting on a pier. The damage to the trusses is slight.

Section 1—Stakes were set for the approaches to the Willow Springs Highway Bridge which, when completed, will open the structure for traffic.

Section 8—Work on the embankment of the A., T. & S. F. Ry. Co. was confined to the north side of the Main Channel and continued up to and including the 24th, at which time work at this point was practically completed. A voucher for 5,600 cubic yards was issued on this account. The ties and stringers for the bridge of this company across the Main Channel were laid, riveting was finished and one coat of paint applied. The finishing of painting will complete the work of the Santa Fe Company with the exception of the replacing of the grade torn down by the contractors to construct side track. A voucher for $104.49 was vouchered to the Santa Fe Company for miscellaneous expenses in connection with this bridge.

The work of riveting the superstructure of the Lemont Highway Bridge across the Main Channel was completed and the bridge floors laid. Painting remains to be done and approaches are not completed.

Section 12—The work of excavating for foundations for the east abutment and pier of the substructure of the Romeo Highway Bridge was carried on from the 4th to the 20th. Concrete work was begun on the 10th and was ready for masonry on the 20th. The laying of masonry walls continued the balance of the month. For the west abutment concreting began on the 29th of March, was ready for masonry on the 7th of April and completed on the 13th. Excavation was also made for foundations for retaining wall for roadway, the laying of concrete for which began on the 17th and continued throughout the month. The following quantities were vouchered on account of this bridge. Excavation, 430 cubic yards; Portland cement concrete, 218 cubic yards; masonry, 43 cubic yards. The work on the superstructure of this bridge was begun on March 28th and continued up to and including April 22nd. All iron work had been assembled and outside of the laying of bridge floor, finishing up riveting and painting, but little remains to be done.

Section 14—The pumping plant was run continuously throughout the month. One pump was operated constantly, and from the 1st to the 8th both pumps were in operation. The water in the Channel on April 30th stood at an elevation of -28.1, being 1.7 feet above grade.

Section 15—Work on the superstructure of the Bear Trap Dam was carried on continuously. The principal operating mechanism and hydraulic cylinders were adjusted in position, and the cleaning and painting of iron was carried on. The principal work remaining to be done is the completion of the faces of the abutments and the timber covering of the down-stream leaf. The work remaining to be done on the foundations consists in adjusting the Weir tubes and cleaning the gearing of the hand wheels. The vouchers issued on account of this work are as follows: Christie & Lowe, $122.16, $135.05 and $691.97.

Section 16—The work of excavation was resumed on this section on the 17th.

Eight days of actual work was done, and 3,000 cubic yards of excavation were vouchered. A voucher for $14.00 to P. T. Dunn & Co. was issued on the 5th, account lighting Lockport Temporary Road.

The work on the substructure of the Lockport Road Bridge was completed, and a final voucher was rendered to the contractors for same. Final quantities for this work are as follows: Excavation, 526 cubic yards; Portland cement concrete, 449.45 cubic yards.

The work on the substructure of the Wire Mills Road Bridge was also completed, and a final voucher was rendered to the contractors for the same. The final quantities for this work are: Excavation, 508 cubic yards; Portland cement concrete, 566.57 cubic yards; excavation of old masonry, 95 cubic yards,

Section 17—Work was carried on throughout the month with little interruption, and satisfactory progress was made. The plant used did not differ materially from that reported last month. The quantities vouchered are as follows: Solid rock, 21,800 cubic yards; earth, 10,100 cubic yards; Tail Race excavation, 4,900 cubic yards. retaining wall, 390 cubic yards; raising tow-path, 1,900 cubic yards. A voucher for $22,572.38 was issued to the contractors for this work.

Section 18—Work was carried on in various parts of this section. Excavation was done mainly at the east end of the C., R. I. & P. R. R. Co.'s Bridge from the 12th to the 25th and the material placed in levee embankment. The work of removing the Guard Lock was finished on the 8th and the removal of forms, etc., and general cleaning up at Lock No. 5 was completed early in the month. Work on the sluice gates was begun on the 1st and completed on the 10th. The repair of the tow-path wall from Jackson Street south was continued during the entire month. The quantities vouchered on account of this work are as follows: Excavation Head I, 3,200 cubic yards; Excavation Head II. 2,700 cubic yards; levee embankment, 2,900 cubic yards; repair of Lock No. 5, 160 cubic yard concrete; excavation of intercepting ditch, 1,100 cubic yards; extra concrete for tunnel, 50 cubic yards; repair of tow-path wall, 500 cubic yards; extra concrete in sluice gates. 90 cubic yards; excavation of Guard Lock, 150 cubic yards; back filling, Lock No. 5, 300 cubic yards. A voucher for $13,871.29 was issued to the contractors for this work. The following collateral vouchers were issued against this section:

Canal Commissioners (work at Lock No. 5)	$2,085 82
Continental Bolt & Iron Works (hardware account, C., R. I. & P. Temporary Bridge)	77 35
The Marsh & Bingham Co. (lumber account, C., R. I. & P. Temporary Bridge)	912 56

DIVISION OF DRAFTING AND DESIGNING.

The regular platting was continued on the following contour maps between Lockport and Lemont, the 50 feet scale maps of the North Branch of the Chicago River and on the atlas of the right of way.

The following drawings were made: A map showing land required for the Romeo Road deviation; copy of map used in the Ray damage case; map of the west bank of the Desplaines River at Joliet, showing lots to be condemned and slope of tow path; map showing the Allen lots in West Lockport; maps of islands in the Desplaines River at Joliet required for right of way purposes; atlas and descriptions of Will County right of way, and atlas and descriptions of Joliet right of way for Recorder's office at Joliet.

The greater part of the time of the Bridge Department was taken up in making plans for the bridge of the C., R. I. & P. R. R. Co. at Joliet; some time was given to correcting plans for the C., R. I. & P. R. R. Co.'s Temporary Bridge at the same place; to the plans of the Cass and Jefferson Street Bridges at Joliet; and the supervision of the erection of the several bridges not yet completed. Considerable time was also spent in connection with the completion of the Southwest Boulevard Bridge.

Detail work on the plans for the By-Pass and work along the Chicago River was continued. The testing of sand and cement for use in construction work was continued, as was also the work of preparing record photographs and the maintenance of water guages. The hydraulic work was carried on as usual; also work on the plans of the Bear Trap Dam and the work through Joliet. The inspection of the Thirty-ninth Street Conduit and all Sanitary District construction work was continued.

DIVISION OF RECORDS.

The work of this Division has been carried on as usual.

I estimate the expenses of this Department for the month of May (including capitalization vouchers) will be $225,000.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,
Chief Engineer."

VALUES— STATEMENT SHOWING CONDITION OF

Designation.	Amount earned during April, 1899. Main Channel.	Bridges.	General.	Total.	Amount earned to date. Main Channel.	River Diversion.	Bridges.	General.
Chicago River Imp'ment	$22,710 48			$22,710 48	$ 228,001 06			
O		$ 5,317 15		5,317 15	341,097 87		$ 75,809 31	
N					200,671 52		3,444 78	
M.					158,015 06			
L					217,287 06			
K		1,186 36		1,186 36	287,299 54		3,100 22	
I.					289,846 00			
H					290,099 46			
G					387,701 88			
F					341,404 40	$ 75,627 73		
E	16,923 05	97 03		17,020 08	736,182 46	29,091 91	15,143 44	$ 260 00
D					592,039 29	2,880 54		
C					443,342 59	40,135 18		781 62
B					438,986 42	59,451 34		150 00
A					801,584 08	115,741 73		
1.					1,210,660 37	143,908 29	1,967 00	30 00
2.					877,695 00	63,190 86		90 00
3.					840,952 93	338 42		
4.					975,248 98	83,304 43		85 25
5.					749,207 28	6,658 64		
6.					686,282 00	55,911 37		
7.					722,544 74	66,193 19		8,758 00
8.					888,834 43	89,683 90	19,853 89	2,580 00
9.					794,838 28	23,573 72	1,012 39	
10.					921,454 79	78,729 58		8,952 25
11.					797,717 50	43,854 42		
12.		16 09		16 09	837,660 69	21,768 52	1,136 87	
13.					819,388 19			
14					931,457 10			
15.					551,915 85	117 61		
16.	1,184 00			1,184 00	39,829 23		1,500 00	
17.	25,797 00			25,797 00	173,232 71			
18.	17,988 72	989 91		18,928 63	70,929 40		1,538 84	
Disposal Wks. at Lockp't	949 18			949 18	246,763 45			
Repairing I. & M. Canal.								18,052 85
Van Buren St. Approach Span, Chicago River...								
Taylor St. Br. over Chicago River							12,666 66	
C. T. T. R. R. Co.'s Br. over Chicago River....							25,333 34	
S. W. Blvd. Br., over M. C., Sec. O							129,594 49	
Pan Handle Br., over M. C., Sec. O							58,345 64	
C.,M. & N. R. R. Co.'s Br., over M. C., Sec. N....		144 96		144 96			156,707 49	
C.,M. & N. R. R. Co.'s Br., over Kedzie Av., Sec. N							14,099 87	
Kedzie Av. Br., over M. C., Sec. N							42,680 78	
A., T. & S. F. R. R. Co.'s Br., over M. C., Sec. N.							61,889 61	
A., T. & S. F. R. R. Co.'s Br., over M. C., Sec. G.		2,258 96		2,258 96			109,110 70	
A., T. & S. F. R. R. Co.'s Br., over D. R., Sec. F.								
Lyons-Summit Road Br., over D. R., Sec. E.....							12,978 77	
Lyons-Summit Road Br., over M. C., Sec. F.....							32,534 95	
C. T. T. R. R. Co.'s Br., over M. C., Sec. E.....		33 57		33 57			50,673 38	
C. T. T. R. R. Co.'s Br., over D. R., Sec. E.....							3,743 10	
Willow Spgs. Highway Br., over M. C., Sec. 1							22,718 52	
A., T. & S. F. R. R. Co.'s Br., over M. C., Sec. 8.		1,112 49		1,112 49			73,365 41	
A., T. & S. F. R. R. Co.'s Br., over D. R., Sec. 8.							26,924 06	
Lemont Highway Br., over M. C., Sec. 8.. ...							20,977 39	
Lemont Highway Br., over D. R., Sec. 8							22,329 89	
Western Stone Co.'s Br., over D. R., Sec. 10.....							15,983 63	

CONSTRUCTION CONTRACTS, MAY 1, 1899.

Total.	Amount Paid to Date.	REMAINING TO BE EARNED.			REMAINING TO BE PAID ON VOUCHERS.		
		Main Channel.	Bridges.	Total.	Retained Percentages.	Unpaid Vouchers.	Total.
$ 228,001 06	$ 185,407 75	$ 92,799 51	.....	$ 92,799 51	$ 22,312 84	$ 20,280 47	$ 42,593 31
416,907 18	415,462 88	40,287 38	.....	40,287 38	.....	1,444 30	1,444 30
204,116 30	179,133 61	56,322 40	.....	56,322 40	24,982 69	.....	24,982 69
158,015 06	158,015 06	.....	.....	.....	.....	.....	.....
217,287 06	217,287 06	819 32	.....	819 32	.....	.....	.....
290,399 76	290,399 76	7,888 25	.....	7,888 25	.....	.....	.....
289,846 00	289,846 00	.....	.....	.....	.....	.....	.....
290,099 46	290,099 46	28,129 13	.....	28,129 13	.....	.....	.....
387,701 88	387,537 38	11,001 20	.....	11,001 20	164 50	.....	164 50
417,032 13	375,082 00	1,918 34	.....	1,918 34	34,103 38	7,846 75	41,950 13
780,677 81	670,027 74	14,728 90	.....	14,728 90	95,313 11	15,336 96	110,650 07
594,919 83	594,919 83	.....	.....	.....	.....	.....	.....
484,259 40	484,259 40	.....	.....	.....	.....	.....	.....
498,587 76	498,587 76	.....	.....	.....	.....	.....	.....
917,325 81	917,325 81	.....	.....	.....	.....	.....	.....
1,356,585 66	1,349,690 00	.....	.....	.....	6,179 83	715 83	6,895 66
940,975 86	940,975 86	.....	.....	.....	.....	.....	.....
841,291 35	841,291 35	.....	.....	.....	.....	.....	.....
1,058,638 66	1,058,638 66	.....	.....	.....	.....	.....	.....
755,860 92	755,860 92	.....	.....	.....	.....	.....	.....
742,193 37	742,193 37	.....	.....	.....	.....	.....	.....
797,495 93	797,495 93	.....	.....	.....	.....	.....	.....
1,000,952 28	1,000,637 28	9,942 66	.....	9,942 66	315 00	.....	315 00
819,424 30	819,424 30	.....	.....	.....	.....	.....	.....
1,009,136 70	1,009,136 70	.....	.....	.....	.....	.....	.....
841,571 92	841,571 92	.....	.....	.....	.....	.....	.....
860,566 08	860,566 08	.....	.....	.....	.....	.....	.....
819,388 19	819,388 19	.....	.....	.....	.....	.....	.....
931,457 10	931,457 10	.....	.....	.....	.....	.....	.....
552,033 46	552,033 46	.....	.....	.....	.....	.....	.....
41,329 23	35,479 23	25,740 00	.....	25,740 00	4,826 25	1,023 75	5,850 00
173,232 71	130,294 02	124,448 60	.....	124,448 60	20,366 81	22,572 38	42,938 69
72,468 24	47,981 57	81,975 90	.....	81,975 90	8,529 56	15,957 11	24,486 67
246,763 45	234,442 22	6,578 98	.....	6,578 98	11,629 26	691 97	12,321 23
18,052 85	18,052 85	.....	.....	.....	.....	.....	.....
.....	.....	.....	$19,495 87	19,495 87	.....	.....	.....
12,666 66	12,666 66	.....	.....	.....	.....	.....	.....
25,333 34	25,333 34	.....	.....	.....	.....	.....	.....
129,594 49	125,433 02	.....	23,940 61	23,940 61	4,161 47	.....	4,161 47
58,345 64	58,345 64	.....	355,670 24	355,670 24	.....	.....	.....
156,707 49	156,707 49	.....	632 61	632 61	.....	.....	.....
14,099 87	14,099 87	.....	.....	.....	.....	.....	.....
42,680 78	42,680 78	.....	250 00	250 00	.....	.....	.....
61,889 61	61,889 61	.....	7,286 54	7,286 54	.....	.....	.....
109,110 70	106,851 74	.....	.....	.....	.....	2,258 96	2,258 96
.....	.....	.....	19,321 80	19,321 80	.....	.....	.....
12,978 77	12,830 82	.....	.....	.....	147 95	.....	147 95
32,534 95	30,252 07	.....	5,362 45	5,362 45	2,282 88	.....	2,282 88
50,673 38	50,673 38	.....	.....	.....	.....	.....	.....
3,743 10	3,694 35	.....	14,428 65	14,428 65	48 75	.....	48 75
22,718 52	22,718 52	.....	160 00	160 00	.....	.....	.....
73,365 41	70,001 83	.....	34,563 30	34,563 30	2,377 09	986 49	3,363 58
26,924 06	26,574 06	.....	—4,962 03	—4,962 03	350 00	.....	350 00
20,977 39	20,977 39	.....	141 35	141 35	.....	.....	.....
22,329 89	22,329 89	.....	.....	.....	.....	.....	.....
15,983 63	15,983 63	.....	.....	.....	.....	.....	.....

VALUES— STATEMENT SHOWING CONDITION OF

Designation.	Amount earned during April, 1899.				Amount earned to date.			
	Main Channel.	Bridges.	General.	Total.	Main Channel.	River Diversion.	Bridges.	General.
Romeo Highway Br. over M. C., Sec. 12	.....	$ 2,573 25	.....	$ 2,573 25	.....	.....	$ 14,482 00	.....
Lockport Highway Br. over M. C., Sec. 16	.....	328 03	.....	328 03	.....	.....	3,649 68	.....
Wire Mills Rd. Br., over M. C., Sec. 16	.....	214 28	.....	214 28	.....	.....	4,691 28	.....
E. J. & E. R. R. Co.'s Br., N. of Joliet	.....	.....	.....	.....	.....	.....	41,984 62	.....
Cass St. Br. over M. C., Sec. 18	.....	.....	.....	.....	.....	.....	.....	.....
Jefferson St. Br. over M. C., Sec. 18	.....	.....	.....	.....	.....	.....	.....	.....
Crib work at Joliet	.....	.....	.....	.....	.....	.....	.....	$32,149 [illegible]
Totals	$85,502 43	$14,272 08	.....	$99,774 51	$ 18,890,171 61	$1,000,156 38	$1,081,991 91	$71,881 [illegible]

CONSTRUCTION CONTRACTS, MAY 1, 1899—*Continued.*

Total.	Amount Paid to Date.	REMAINING TO BE EARNED.			REMAINING TO BE PAID ON VOUCHERS.		
		Main Channel.	Bridges.	Total.	Retained Percentages.	Unpaid Vouchers.	Total.
$ 14,482 00	$ 11,551 91	.....	$ 10,227 75	$ 10,227 75	$ 678 50	$ 2,251 59	$ 2,930 09
3,649 68	2,906 44	.....	10,827 32	10,827 32	.....	743 24	743 24
4,691 28	3,917 37	.....	10,070 02	10,070 02	.....	773 91	773 91
41,984 62	41,984 62	.....	.....	.....	.....	.....	.....
.....	.....	.....	38,265 75	38,265 75	.....	.....	.....
.....	.....	.....	45,627 25	45,627 25	.....	.....	.....
32,140 89	32,140 89	.....	.....	.....	.....	.....	.....
$21,044,200 91	$20,712,547 83	$502,580 57	$591,309 48	$1,093,890 05	$238,769 37	$92,883 71	$331,653 08

QUANTITIES— STATEMENT SHOWING CONDITION OF CON

DESIGNATION.	AMOUNT DONE DURING APRIL, 1899.				TOTAL DONE TO		
	Main Channel.				*Main Channel.*		
	Glacial Drift. Cu. Yds	Solid Rock. Cu. Yds	Retain-i'g wall Cu. Yds	Masonry and Conc'rt. Cu. Yds.	Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds.	Retaining Wall. Cu. Yds.
Chicago River Improvement	71,700	.....	.....	600	701,900	.....	.....
O	.....	.....	.....	.....	1,630,512	.....	.....
N	.....	.....	.....	.....	870,429	.....	.....
M	.....	.....	.....	.....	728,180	.....	.....
L	.....	.....	.....	.....	1,102,980	.....	.....
K	.....	.....	.....	.....	1,149,081	.....	.....
I	.....	.....	.....	.....	1,159,384	.....	.....
H	.....	.....	.....	.....	997,014	.....	.....
G	.....	.....	.....	.....	1,356,614	.....	.....
F	.....	.....	.....	.....	1,093,047	37,448	.....
E	.....	9,150	.....	.....	1,906,732	196,568	.....
D	.....	.....	.....	.....	1,934,890	87,080	.....
C	.....	.....	.....	.....	1,881,545	.....	.....
B	.....	.....	.....	.....	1,570,036	15,586	.....
A	.....	.....	.....	.....	2,560,648	13,312	.....
1	.....	.....	.....	.....	1,292,267	554,326	68,256
2	.....	.....	.....	.....	724,905	483,750	38,506
3	.....	.....	.....	.....	425,705	760,778	14,039
4	.....	.....	.....	.....	1,096,746	262,428	68,169
5	.....	.....	.....	.....	952,526	378,609	56,039.1
6	.....	.....	.....	.....	683,248	549,355	30,361.7
7	.....	.....	.....	.....	181,721	890,939	6,179.9
8	.....	.....	.....	.....	50,170	1,145,252.1	2,874.9
9	.....	.....	.....	.....	76,692	1,008,769	.....
10	.....	.....	.....	.....	31,743	1,141,890	.....
11	.....	.....	.....	.....	44,021	989,711	.....
12	.....	.....	.....	.....	44,030	998,709	9,286.94
13	.....	.....	.....	.....	33,810	1,033,665	10,838
14	.....	.....	.....	.....	380,165	1,022,796	23,567.8
15	.....	.....	.....	.....	35,324	647,039	44,811.2
16	3,000	.....	.....	.....	3,000	96,000	.....
17	10,100	26,200	390	.....*	94,900	178,400	500
18	7,000	150	.....	800	81,300	1,050	.....
Disposal Works at Lockport	.....	.....	.....	.....	.....	9,538	.....
Van Buren St. App. Span, Chicago R.	.....	.....	.....	.....	.....	.....	.....
S. W. Blvd. Bridge over M. C., Sec. O.	.....	.....	.....	.....	9,873.5	.....	.....
Panhandle Bridge over M. C., Sec. O.	.....	.....	.....	.....	.....	.....	.....
C., M. & N. R. R. Co.'s Bridge over Main Channel, Sec. N	.....	.....	.....	.....	17,849	.....	.....
C., M. & N. R. R. Co.'s Bridge over Kedzie Avenue, Sec. N	.....	.....	.....	.....	2,869	.....	.....
Kedzie Avenue Bridge over Main Channel, Sec. N	.....	.....	.....	.....	7,101	.....	.....
A., T. & S. F. R. R. Co.'s Bridge over Main Channel, Sec. N	.....	.....	.....	.....	7,445	.....	.....
A., T. & S. F. R. R. Co.'s Bridge over Main Channel, Sec. G	.....	.....	.....	.....	85,253	.....	.....
Lyons-Summit Road Bridge over Desplaines River, Sec. E	.....	.....	.....	.....	5,557	.....	.....
Lyons-Summit Road Bridge over Main Channel, Sec. F	.....	.....	.....	.....	2,266	.....	.....
C., T. T. R. R. Co.'s Bridge over Main Channel, Sec. E	.....	.....	.....	.....	4,748.1	.....	.....
C., T. T. R.R. Co.'s Br. over Desplaines River, Sec. E	.....	.....	.....	.....	600	.....	.....
Willow Springs Highway Bridge over Main Channel, Sec. 1	.....	.....	.....	.....	2,084	.....	.....
A., T. & S. F. R. R. Co.'s Bridge over Main Channel, Sec. 3	.....	.....	.....	.....	98,315	1,020	.....
Lemont Highway Bridge over Main Channel, Sec. 8	.....	.....	.....	.....	2,006	202	.....
Romeo Highway Bridge over Main Channel, Sec. 12	.....	430	.....	261	.....	1,330	.....
Lockport Highway Bridge over Main Channel, Sec. 16	.....	172	.....	22.45	.....	526	.....
Wire Mills Road Bridge over Main Channel, Sec. 16	.....	28	.....	26.57	.....	603	.....
E., J. & E. R.R.Co.'s Bridge, N. of Joliet	.....	.....	.....	.....	.....	.....	.....
Cass St. Bridge over M. C., Sec. 18	.....	.....	.....	.....	.....	.....	.....
Jefferson St. Bridge over M. C., Sec. 18	.....	.....	.....	.....	.....	.....	.....
Totals	91,800	36,130	390	1,710.02	27,111,181.6	12,501,629.1	373,449.54

*6,300—Retaining Wall.

STRUCTION CONTRACTS MAY 1, 1899.

DATE.				ESTIMATED REMAINING TO BE DONE.				PERCENTAGE COMPLETED.				
River Diversion.		Piles. Lineal Feet	Masonry and Concr't Cu. Yds.	*Main Channel.*				Main Channel Excava'n	River Divers'n.	Ret. Wall	Masonry and Concr't	Piles.
Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds.			Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds	Piles & R. W.	Mas'y & Concr't Cu. Yds					
.....	.....	35,500	1,438	165,000	.....	.....	5,891	80.97	.....	....	19.6½	100
.....	.....	.....	.....	192,523	.....	.....	.....	89.44	.....	....	.....	.....
.....	.....	.....	.....	244,880	.....	.....	.....	77.80	.....	....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	....	.....	.....
.....	.....	.....	.....	4,159	.....	.....	.....	99.62	.....	...	.....	.....
.....	.....	.....	.....	31,553	.....	.....	.....	97.33	.....	....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	....	.....	.....
.....	.....	.....	.....	96,997	.....	.....	.....	91.22	.....	....	.....	.....
.....	.....	.....	.....	39,290	.....	.....	.....	97.18	.....	....	.....	.....
179,447	.....	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
95,718	.....	.....	.....	12,302	3,432	.....	.....	99.25	100	....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	....	.....	.....
170,788	.....	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
212,486	.....	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
359,353	.....	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
174,655	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
119,234	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	100	.....	.....
106,803	17,857	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
12,256	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
118,647	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
97,917	43,102	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
57,902	99,399	.....	.....	.....	15,782	.....	.....	98.70	100	100	.....	.....
40,763	16,873	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
30,318	58,276	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
12,699	15,677	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
11,739	7,475	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	100	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	100	.....	.....
619	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
.....	.....	.....	.....	.....	69,000	.....	.....	58.93	.....	....	.....	.....
.....	.....	.....	.....	192,570	150,160	.....	.....	44.36	.....	100	.....	.....
.....	.....	.....	2,507	150,335	.....	*6,300	.....	34.05	.....	00	100	.....
.....	.....	.....	11,365.7	.....	567	.....	.....	94.39	.....	....	100	.....
.....	.....	.....	.....	2,800	.....	.....	784	00	.....	....	00	.....
.....	.....	10,813	4,421.94	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	.....	.....	28,000	.....	29,600	14,260	00	.....	....	00	00
.....	.....	5,948	4,236.77	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	.....	595.69	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	.....	2,886.84	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	4,544	2,489.36	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	5,748	2,929.03	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	.....	793.3	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	1,501	2,015	104	.....	2,499	.....	95.61	.....	....	100	37.53
.....	.....	1,166.5	2,162.79	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	.....	.....	372	.....	1,000	652	61.73	.....	....	00	00
.....	.....	400	598.6	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	.....	817.07	29,785	.....	.....	.....	98.97	.....	....	100	.....
.....	.....	.....	433.36	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	.....	508	.....	.....	.....	574	100	.....	....	52.01	.....
.....	.....	.....	449.45	.....	.....	.....	.....	100	.....	....	90.85	.....
.....	.....	.....	566.57	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	.....	1,041.84	.....	.....	.....	.....	.....	.....	....	100	.....
.....	.....	.....	.....	2,850	52	.....	696	00	.....	....	00	.....
.....	.....	.....	.....	3,000	104	.....	1,242	00	.....	....	00	.....
1,339	258,659	65,620.5	42,256.31	1,200,520	239,097	33,099	24,199	96.49	100	98.34	63.59	66.47

SANITARY DISTRICT OF CHICAGO—ENGINEERING DEPARTMENT.

CLASSIFIED STATEMENT OF EXPENDITURES DURING THE MONTH OF APRIL, 1899.

Classification.	*Engineering Expenses.*			Construction.	Capitalization.	*Total.*		Capitalization.
	Salaries.	Supplies, Etc.	Total.			Eng. Expenses.	Construction	
Preliminary Sundries						$120,633 75		
Locating Route Main Channel						32,222 94		
Borings and Test Pits						18,864 71		
Maps and Plans for General Use of Sanitary District	$ 88 10	$ 17 50	$ 105 60			53,491 08		
Chicago River Survey	159 00		159 00			63,995 15		
Chicago River Improvement	1,179 40	5 76	1,185 16	$ 20,208 47		24,576 43	$ 205,688 22	
Right of Way	489 00	25 71	514 71			37,861 67		
Flood Measurements	57 10		57 10			26,812 32		
Disposal Works and Joliet Project	2,569 96	105 96	2,675 92	41,492 33		91,359 33	505,592 18	
Regular Construction—Main Channel and River Diversion	1,421 73	52 04	1,473 77	14,807 67		565,469 30	18,391,035 71	
Extra Work—Main Channel						31 33	63,618 63	
Extra Work—River Diversion						9,723 42	334,304 74	
Levees, Embankments, etc.						1,022 49	193,177 19	
Spillway						1,754 91	20,518 41	
Wire Mills Road Temporary Bridge over Main Channel, Sec. 16							1,500 00	
Wire Mills Road Permanent Bridge over Main Channel, Sec. 16				773 91		912 10	4,691 28	
Lockport Temporary Roadway over Main Channel, Sec. 16				14 00			1,219 23	
Lockport Road Permanent Bridge over Main Channel, Sec 16				743 24		599 48	3,649 68	
Romeo Road Permanent Bridge over Main Channel, Sec. 12	171 44	9 30	180 74	2,251 59		1,191 57	13,803 50	
Romeo Road Temporary Bridge over Main Channel, Sec. 12				16 09			1,136 87	
Work Account Western Stone Company's Quarry No. 5, Sec. 10							8,865 65	
Western Stone Company's Permanent Bridge over Desplaines River, Sec. 10						1,157 05	15,983 63	
Western Stone Company's Temporary Bridge over Main Channel, Sec. 9							1,012 30	
Lemont Road Permanent Bridge over Main Channel, Sec. 8						1,164 31	20,977 39	

Lemont Road Temporary Bridge over Main Channel, Sec. 8							$ 1,115 09	
Lemont Road Permanent Bridge over Desplaines River, Sec. 8						$ 985 66	22,329 89	
A., T. & S. Fe Ry. Co.'s Temporary Bridge over Desplaines River, Sec. 8						770 72	18,738 80	
A., T. & S. Fe Ry. Co.'s Permanent Bridge over Desplaines River, Sec. 8		$ 1 00	$ 1 00			3,230 62	26,574 06	
A., T. & S. Fe Ry. Co.'s Permanent Bridge over Main Channel and track deviation, Sec. 8	$ 39 92	12 07	51 99	$ 986 49		4,646 85	70,744 19	
Willow Springs Road Temporary Bridge over Main Channel, Sec. 1						9 00	1,987 00	
Willow Springs Road Permanent Bridge over Main Channel, Sec. 1						1,238 09	22,718 52	
Mt. Forest Foot Bridge over Illinois and Michigan Canal. Sec. A						32 17		
C. T. T. R. R. Co.'s Temporary Bridge over Main Channel, Sec. E						502 42	7,227 12	
C. T. T. R. R. Co.'s Permanent Bridge over Main Channel, Sec. E	10 00		10 00	33 57		3,511 07	51,014 63	
C. T. T. R. R. Co.'s Temporary Bridge over Desplaines River, Sec. E	20 00		20 00	97 03		408 00	3,558 30	
C. T. T. R. R. Co.'s Permanent Bridge over Desplaines River, Sec. E	15 00		15 00			1,023 84	3,353 10	
Lyons-Summit Road Temporary Bridge over Main Channel, Sec. E						839 05	5,649 52	
Lyons-Summit Road Permanent Bridge over Main Channel, Sec. F	60 00		60 00			2,078 38	30,252 07	
Lyons-Summit Road Temporary Bridge over Desplaines River, Sec. E	20 00		20 00			60 00		
Lyons-Summit Road Permanent Bridge over Desplaines River, Sec. E						1,452 12	12,830 82	
A., T. & S. Fe Ry. Co.'s Permanent Bridge over Desplaines River, Sec. F						891 45		
A., T. & S. Fe Ry. Co.'s Temporary Bridge over Main Channel, Sec. G						7 00		
A., T. & S. Fe Ry. Co.'s Permanent Bridge over Main Channel and track deviation, Sec. G	70 00	1 50	71 50	2,258 96	33,207 60	5,646 21	110,687 43	33,207 60
C. & W. I. Belt Ry's Temporary Bridge over Main Channel, Sec. K	80 00		80 00	1,186 36		464 00	2,998 26	
C. & W. I. Belt Ry's Permanent Bridge over Main Channel, Sec. K	110 00	31 68	141 68			3,571 37		
A., T. & S. Fe Ry. Co.'s Temporary Bridge over Main Channel, Sec. N						428 69	3,444 78	
A., T. & S. Fe Ry. Co.'s Permanent Bridge over Main Channel, Sec. N	30 00		30 00			4,825 78	60,312 88	
Kedzie Avenue Temporary Roadway over Main Channel, Sec. N						512 15	1,067 72	
Kedzie Avenue Permanent Bridge over Main Channel, Sec. N						3,215 36	42,423 09	
C., M. & N. R. R. Co. 's bridge over M. C. and Kedzie Av. track deviation, Sec. N	170 00	315 39	485 39	144 96		7,531 24	167,399 78	
Western Avenue Temporary Bridges over Main Channel, Sec. O						1,557 97	8,696 84	
Southwest Boulevard Permanent Bridge over Main Channel, Sec. O	105 00		105 00			11,798 28	125,433 02	

SANITARY DISTRICT OF CHICAGO—ENGINEERING DEPARTMENT—*Continued.*

CLASSIFIED STATEMENT OF EXPENDITURES DURING THE MONTH OF APRIL, 1899.

Classification.	*Engineering Expenses.*			Construction.	Capitalization.	*Totals.*		Capitalization.
	Salaries.	Supplies, Etc.	Total.			Eng. Expenses.	Construction	
Pan Handle R. R. Co.'s Temporary Bridge over Main Channel, Sec. O....	145 00	.....	145 00	5,317 15	.....	3,854 26	57,679 28	.....
Pan Handle R. R. Co.'s Permanent Bridge over Main Channel, Sec. O....	272 00	2 50	274 50	.....	.....	12,939 78	57,798 20	.....
Canal Street Approach Span, Chicago River.....	.....	.....	.....	.....	.....	32 00	.....	.....
Taylor Street Temporary Bridge over Chicago River.....	16 00	.....	16 00	.....	.....	16 00	.....	.....
Taylor Street Permanent Bridge over Chicago River.....	50 00	.....	50 00	.....	.....	137 83	12,666 66	.....
C. T. T. R. R. Co.'s Temporary Bridge over Chicago River.....	.....	.....	.....	.....	.....	75 00	.....	.....
C. T. T. R. R. Co.'s Permanent Bridge over Chicago River.....	148 00	.....	148 00	.....	.....	276 54	25,333 34	.....
E. J. & E. R. R. Co.'s Permanent Bridge between Secs. 16 and 17.....	.....	.....	.....	.....	.....	1,653 94	41,984 62	.....
Tow Path Permanent Bridge, Sec. 17.....	.....	.....	.....	.....	.....	9 96	.....	.....
Jefferson Street Temporary Bridge, Sec. 18.....	35 00	.....	35 00	.....	.....	242 00	.....	.....
Jefferson Street Permanent Bridge, Sec. 18.....	29 00	1 44	30 44	.....	.....	708 18	.....	.....
Cass Street Permanent Bridge, Sec. 18.....	29 00	1 68	30 68	.....	.....	763 33	.....	.....
C., R. I & P. R. R. Co's. Temporary Bridge, Sec. 18.....	29 00	.....	29 00	.....	.....	136 07	548 93	.....
C., R. I. & P. R. R. Co.'s Permanent Bridge, Sec. 18.....	153 00	.....	153 00	.....	.....	1,006 37	.....	.....
Moving and Repairing Bridges.....	.....	.....	.....	.....	.....	614 88	8,341 44	.....
Building Romeo Highway, Sec. 12.....	.....	.....	.....	.....	.....	106 34	1,732 72	.....
Saving of Building Sand.....	.....	.....	.....	.....	.....	.....	781 63	.....
Mortar, Sand and Cement Tests.....	454 25	12 52	466 77	.....	.....	32,299 69	.....	.....
Saving of Dimension Stone.....	.....	.....	.....	.....	.....	.....	11,233 20	.....
Erosion Tests.....	.....	.....	.....	.....	.....	1,496 75	.....	.....
Temporary Sanitary Relief.....	.....	.....	.....	.....	.....	237 60	.....	.....
Photographs of Works.....	125 00	20 40	145 40	.....	.....	9,801 65	.....	.....

Public Reports	.....	.....	.....	.....	.....	3,580 16	.....	.....
Remeasurement of Main Channel	.....	.....	.....	.....	.....	5,283 82	.....	.....
Effect of Main Channel Water on Lake Levels	.....	.....	.....	.....	.....	1,798 38	.....	.....
General Account	.....	.....	.....	.....	.....	71,947 23	.....	.....
Totals	$ 8,250 90	$ 616 45	$ 8,967 35	$ 90,403 82	$33,207 60	$1,264,098 59	$20,305,431 54	$33,207 60

REPORT IN REFERENCE TO REMOVAL OF PONTOON BRIDGE AT WESTERN AVENUE.

Mr. Smyth, chairman, presented, and the Clerk read, a report from the Committee on Engineering in reference to the removal of the old pontoon bridge at Western Avenue, the report recommending that the President and Clerk be authorized and directed to enter into a contract with P. Peterson for the removal of said bridge for the sum of $340, said Peterson to be allowed to retain certain material, as set forth in the report.

Mr. Smyth, seconded by Mr. Mallette, moved that the report be adopted and the recommendations contained therein concurred in.

On roll call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—nine. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, May 22, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—The Committee on Engineering reports that it has discussed the advisability of removing the old pontoon bridge at Western Avenue, and has invited bids for the removal of said bridge at said point; that one P. Peterson has proposed to remove the bridge for three hundred and forty dollars ($340 00), and that, as his is the lowest bid received, the Committee advises that he be awarded the contract.

As part of the consideration for the work to be done, however, it is stipulated that the contractor shall retain all the material contained in said bridge or connected therewith, excepting the scow and piles now remaining at the place aforesaid.

The Committee recommends that the President and Clerk of the District be authorized and directed to enter into a contract with said P. Peterson, Esq., for the removal of said old pontoon bridge from Western Avenue to such point as may be agreed upon, for the sum of three hundred and forty dollars ($340.00); said contract to contain the provision hereinabove referred to as to the contractor retaining the material in said bridge, etc.

Respectfully submitted;

(Signed) THOMAS A. SMYTH,
Chairman.
J. P. MALLETTE,
ALEX. J. JONES,
JOS. C. BRADEN,
Z. R. CARTER,
THOMAS KELLY,
FRANK WENTER,
WM. BOLDENWECK.
Committee on Engineering."

REPORT IN REFERENCE TO FINAL PAYMENT ON CONTRACT FOR SUPERSTRUCTURE FOR KEDZIE AVENUE BRIDGE ACROSS MAIN CHANNEL ON SECTION N; FOR SUPERSTRUCTURE FOR C., M. & N. R. R. BRIDGE NEAR EAST END OF SECTION N AND FOR SUBSTRUCTURE FOR SUMMIT AND LYONS HIGHWAY BRIDGE AT WEST END OF SECTION F.

Mr. Smyth, chairman, presented, and the Clerk read, a report from the Committee on Engineering with reference to and accompanied by final certificates of the Chief Engineer as to the completion of the work on the contract with the King Bridge Company for the superstructure for the Kedzie Avenue Bridge across Main Channel on Section N; with the Toledo Bridge Company for the superstructure for the C., M. & N. R. R. Bridge near east end of Section N and jointly with Messrs. McArthur Bros. Company and Winston & Co. for the substructure for Summit and Lyons Highway Bridge at west end of Section F, the report recommending that the President and Clerk be authorized and directed to make final payment to said King Bridge Company of $250, to said Toledo Bridge Company of $2,000, and to said McArthur Bros. Company and Winston & Co. of $2,440.78, upon the execution of receipts in full and releasing District from any and all claims of whatsoever nature.

Mr. Smyth, seconded by Mr. Wenter, moved that the report be adopted and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—nine. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, May 22, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—The Committee on Engineering desires to report that the Chief Engineer has awarded final certificates to the King Bridge Company of Cleveland, Ohio, for the work done under its contract, dated May 1, 1898, for the superstructure of the Kedzie Avenue Highway Bridge across Section "N" of the Main Channel, in the sum of two hundred and fifty dollars ($250.00), and to The Toledo Bridge Company of Toledo, Ohio, for the work done under its contract, dated November 16, 1897, for the superstructure of the Chicago, Madison & Northern Railroad Bridge across Section "N" of the Main Channel, in the sum of two thousand dollars ($2,000.00), and to McArthur Bros. Company and Winston & Co. for the work done under their contract, dated August 19, 1898, for the substructure of the Summit and Lyons Highway Bridge across the Main Channel on Section "F", in the sum of twenty-four hundred and forty dollars and seventy-eight cents ($2,440.78); that the Committee has examined each of said certificates and considered the subject matter of the completion of the work done under each of said contracts respectively, and recommends as follows:

That the President and Clerk of the District be authorized and directed to make final payment to said King Bridge Company in the sum of two hundred and fifty dollars ($250.00), to said The Toledo Bridge Company in the sum of two thousand dollars ($2,000.00), and to said McArthur Bros. Company and Winston & Co. in the sum of twenty-four hundred and forty dollars and seventy-eight cents ($2,440.78), the sums found to be due said contractors respectively, upon the execution of a receipt, in favor of the District, made by each of said contractors, in full and releasing the District from any and all claims and demands of every kind and nature whatsoever by said contractors.

Respectfully submitted,

(Signed) THOMAS A. SMYTH,
Chairman.
J. P. MALLETTE,
JOS. C. BRADEN,
FRANK WENTER,
ALEX. J. JONES,
WM. BOLDENWECK,
Committee on Engineering."

The following are

THE CERTIFICATES OF THE CHIEF ENGINEER:

CHICAGO, May 13, 1899.

To the Honorable the Board of Trustees of Sanitary District of Chicago:

GENTLEMEN—I hereby certify that the King Bridge Company has completed all of the work covered by its contract dated May 31, 1898, for the superstructure of the Kedzie Avenue Highway Bridge across the Main Channel on Contract Section "N," to the full satisfaction of the Chief Engineer and in accordance with the terms of the said contract with this District. This certificate is given subject to any unaccrued or unmatured obligations imposed by the contract.

The following is a statement covering the contract:

Contract price for superstructure complete	$21,315 00
Less amount paid on previous estimates	21,065 00
Amount due and unpaid	$ 250 00

Respectfully submitted,

(Signed) ISHAM RANDOLPH,
Chief Engineer."

The following is

THE REPORT:

"CHICAGO, May 13, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I hereby certify that The Toledo Bridge Company has completed all of the work covered by its contract dated November 16, 1897, for the superstructure of the bridge across the Main Channel on contract Section "N" for the use of the C., M. & N. R. R. Co. to the full satisfaction of the Chief Engineer and in accordance with the terms of the said contract with this District.

This certificate is given subject to any unaccrued or unmatured obligations impossd by the contract.

The following is a statement covering this contract:

Contract price for superstructure complete	$71,164 00
Extra material sundry test bars	95 22
Extra material, four rods used in tests	17 29

Extra material, eight clevices used in tests	$ 25 50
Extra material, sundry metal including name plates	1,229 38
Total	$72,531 39
Less amount paid on previous estimates	70,531 39
Amount due and unpaid	$2,000 00

Respectfully submitted,

(Signed.) ISHAM RANDOLPH,

Chief Engineer."

"CHICAGO, May 13, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN:—I hereby certify that McArthur Bros. Company and Winston & Company have completed all of the work covered by their contract dated Aug. 19, 1898, for the substructure of the Lyons-Summit Highway Bridge across the Main Channel on Contract Section "F" to the full satisfaction of the Chief Engineer and in accordance with the terms of said contract with this District. This certificate is given subject to any unaccrued or unmatured obligations imposed by the contract.

The following is the statement covering the contract:

Excavation, 2,270 cu. yds. at 40c	$ 908 00
Timber in foundation, 3,000 ft., B. M., at $25	75 00
Piles delivered, 3,160 lin. ft. at 15c	474 00
Piles driven, 1,501 lin. ft. at 15c	225 15
Natural cement concrete, 306.6 cu. yds. at $3.50	1,073 10
Portland cement concrete, 556.8 cu. yds. at $6	3,340 80
Masonry, 1,173.8 cu. yds. at $10.50	12,324 90
Total amount earned	$18,420 95
Total amount paid	15,980 17
Total amount due and unpaid	$ 2,440 78

Respectfully submitted,

(Signed) ISHAM RANDOLPH,

Chief Engineer."

PAYMENT OF INDEMNITY TO C., M. & N. R. R. CO. FOR REPAIRS AND MAINTENANCE OF BRIDGES.

Mr. Smyth, Chairman, presented, and the Clerk read, a report from the Committee on Engineering setting forth that the Chief Engineer of the District and the Chief Engineer of the C., M. & N. R. R. Co., acting together under the provisions of the agreement with that company, of June 22, A. D. 1897, have found the amount of indemnity to be paid for the cost of original bridge repairs, etc., under the terms of said contract to be $58,954.50; the report being accompanied by the certificate of said Chief Engineers and recommending that the President and Clerk be authorized and directed to pay said sum to said company on execution of a proper receipt.

Mr. Smyth, seconded by Mr. Carter, moved that the report be adopted and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—nine. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT.

"CHICAGO, May 22, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—The Committee on Engineering desires herewith to report that the Chief Engineer of the District and the Chief Engineer of the Chicago, Madison and Northern Railroad Company, acting, together, under the provisions of Section 5, Article 2, of the contract entered into on the 22nd day of June, A. D. 1897, by and between the Chicago, Madison and Northern Railroad Company and the District (page 4090 of the Proceedings), with reference to the payment to be made to the said Railroad Company, as an indemnity for the cost of ordinary bridge repairs, etc., under the terms of said contract, have found that the sum to be paid to said Company amounts to fifty-eight thousand nine hundred and fifty-four dollars and fifty cents.

The Committee, therefore, recommends that the President and Clerk of the District be authorized and directed to pay to the said Chicago, Madison and Northern Railroad Company the sum of fifty eight thousand nine hundred and fifty-four dollars and fifty cents ($58,954.50), when said company shall have executed a proper receipt therefor.

Attached hereto is the certificate of said Engineers.

Respectfully submitted,

(Signed) THOMAS A. SMYTH,
Chairman,
J. P. MALLETTE,
ALEX. J. JONES,
THOMAS KELLY,
FRANK WENTER,
WM. BOLDENWECK,
JOS. C. BRADEN,
Committee on Engineering."

The following is

THE CERTIFICATE OF THE CHIEF ENGINEERS.

Acting under the provisions of Section 5, Article II, of the contract entered into on the 22nd day of June, A. D. 1897, by and between the Chicago, Madison and Northern R. R. Company, party of the first part, and the Sanitary District of Chicago, party of the second part.

We, the undersigned, Chief Engineers, respectively, of the said Railroad Company and the said Sanitary District, hereby certify that we have verified the weights, quantities and volumes of materils, coming under the provisions of said Section 5 of the aforesaid contract of June 22, A. D. 1897, and have made the computations thereon for the purpose of determining the sum to be paid the Railroad Company by the Sanitary District as an indemnity for the cost of ordinary repairs and maintenance of the bridge structure erected across the Main Channel of the said Sanitary District and the girder span across Kedzie Avenue (both on Contract Section "N") for the use of the Railroad Company, and as a consideration for the Railroad Company's assuming all liability for natural depreciation of and accident to the said structures — such computations being made on the basis of the use of said bridges as fixed structures—and we find the sum to be so paid to amount to fifty-eight thousand nine hundred and fifty-four and fifty hundredths dollars ($58,954.50), as shown in detail upon the statement hereto attached.

(Signed.)

Chicago, Madison and Northern Railroad Company,
By DAVID SLOAN,
Chief Engineer.
Sanitary District of Chicago:
By ISHAM RANDOLPH,
Chief Engineer.

RELEASE OF SURETY ON REDUCED BOND ON CONTRACT FOR SECTION 15.

Mr. Smyth, Chairman, presented, and and the Clerk read, a report from the Committee on Engineering with reference to and accompanied by a communication from the Fidelity and Deposit Company of Maryland, as to the cancellation of the reduced bond of Messrs. Wright, Meysenburg, Sinclair & Carry on the contract for Section 15, the report recommending that the surety on said bond be released from further liability, the contractors, however, to remain liable thereon.

Mr. Smyth, seconded by Mr. Eckhart, moved that the report be adopted and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart Jones, Kelly, Mallette, Smyth and Wenter—nine. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT.

"CHICAGO, May 23, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—The Committee on Engineering herewith reports that it has received a communication from the Fidelity and Deposit Company of Maryland, on behalf of Messrs. Wright, Meysenburg, Sinclair & Carry, requesting the cancellation of their bond for five thousand dollars ($5,000.00), approved by the Board of Trustees on June 16th, A. D. 1898 (page 4889 of the Proceedings).

This firm had a contract for Section 15 of the Main Channel and the work thereon has been fully completed for more than two years last past. The Committee has been advised by the Attorney for the District in an opinion, hereto attached, that, in view of the fact that there are no claims pending against said contractors on said section, there is no further necessity for holding the surety on said bond.

The Committee deems it advisable, therefore, that said bond be released, and recommends that the surety company on said bond be released from further liability thereon; provided, how-

ever, that the contractors shall remain and continue to be liable thereon.

Respectfully submitted,

(Signed) THOMAS A. SMYTH,
Chairman.
J. P. MALLETTE,
B. A. ECKHART,
FRANK WENTER,
ALEX. J. JONES,
WM. BOLDENWECK.
Committee on Engineering."

(Two enclosures.)

REPORT IN REFERENCE TO AGREEMENT FOR MODELS OF SANITARY DISTRICT WORK FOR PARIS EXPOSITION.

Mr. Smyth, Chairman, presented, and the Clerk read, a report from the Committee on Engineering with reference to the acceptance of a proposition made by Edwin E. Howell of Washington, D. C., for furnishing certain models of District work to be sent to the Paris Exposition in 1900; the report recommending that the Board of Trustees approve the contract made through the Chief Engineer of the District with said Edwin E. Howell for the work specified, provided the compensation to be paid, including labor and material, shall not exceed $3,500, the report being accompanied by a copy of the acceptance of the Chief Engineer of said proposition.

Mr. Smyth, seconded by Mr. Eckhart, moved that the report be adopted and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Carter, Eckhart, Kelly, Smyth and Wenter—six. Nays—Messrs. Braden, Jones and Mallette—three.

Upon this result the President declared the motion carried.

The following is

THE REPORT.

"CHICAGO, May 22, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—The Committee on Engineering herewith reports that the Chief Engineer of the District, in accordance with the direction of the Committee, has written an acceptance to the proposition made by Edwin E. Howell. Esq., of Washington, D. C., for the modeling of a relief map of the Sanitary District of Chicago, and for certain models of the work to be sent to the Paris Exposition in 1900. The terms of employment of said Howell, in the matter of constructing the models, are outlined in a communication of the said Chief Engineer of the District to said Howell, dated May 17th, 1899, a copy of which is hereto attached. The total compensation which the Committee has agreed shall be paid for the entire work of constructing said models shall not exceed thirty-five hundred dollars ($3,500.00). This includes models of characteristic sections of the Canal, as at Willow Springs and other parts of the Channel, and also of the Controlling Works, showing the Bear Trap Dam, sluice gates, abutments, piers, etc. The work is to be acceptable to the Chief Engineer of the District, and all to be completed in proper time for the Exposition in 1900.

The Committee recommends that the Board of Trustees approve the contract made through the Chief Engineer of the District with said Edwin E. Howell, Esq., for the work specified, providing that the compensation to be paid, including labor, materials, etc., shall not exceed thirty-five hundred dollars ($3,500.00).

Respectfully submitted,

(Signed) THOMAS A. SMYTH,
Chairman.
B. A. ECKHART,
FRANK WENTER,
THOMAS KELLY,
WM. BOLDENWECK,
Committee on Engineering."

(One enclosure.)

REPORT IN REFERENCE TO BIDS "FOR SUPPLYING AND ERECTING SUB AND SUPERSTRUCTURE OF BELT RAILWAY BRIDGE CROSSING MAIN CHANNEL NEAR EAST END OF SECTION K."

Mr. Smyth, chairman, presented and the Clerk read a report from the Committee on Engineering in reference to the bids "for supplying and erecting sub and superstructure of Belt Railway Bridge crossing Main Channel near east end of Section K," presented and referred to that Committee at the meeting held May 10, 1899 (page 5696 of the Proceedings), the report recommending that the President and Clerk be authorized to execute a contract with the Toledo

Bridge Company at the prices set forth in the report as soon as same shall have been executed by said Toledo Bridge Company and a bond furnished by said company acceptable to the Committee on Finance and approved by the Board; the report also recommending that the checks of all but those of the three lowest bidders on said work be returned to said bidders respectively, and that when said contract is properly executed the checks of said three lowest bidders be then returned.

Mr. Smyth seconded by Mr. Kelly, moved that the report be adopted and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—nine. Nays—none.

Upon this result the President declared the motion carried.

In the same connection Mr. Jones, seconded by Mr. Wenter, moved that the rules be suspended and that the Committee on Finance be authorized to approve the said bond of the Toledo Bridge Company on behalf of the Board.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—nine. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, May 22, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—The Committee on Engineering, to which was referred at the meeting of the Board held on the 10th of May, 1899, (page 5696 of the Proceedings), bids for the sub and superstructure for the Belt Railway Four-Track Bridge near the east end of contract Section "K", on the line of the Main Channel, herewith reports that the Committee has carefully examined and considered the list of bids submitted on the work mentioned, as advertised for, and finds the lowest bidder on said work to be The Toledo Bridge Company of Toledo, Ohio; and the Committee reports that the said lowest bidder is, in its opinion, responsible; and therefore, it recommends that the contract for the execution of said work, as herein above mentioned, be let to said The Toledo Bridge Company, at the following prices:

For excavation, 45 cents per cubic yard.

For piles, delivered, 16 cents per lineal foot.

For piles, in foundation, 19 cents per lineal foot.

For Portland cement concrete, $5.60 per cubic yard.

Fer masonry, $11.00 per cubic yard.

For superstructure complete, as specified, $131,200.00.

For extra medium or soft steel, 5½ cents per pound.

For extra steel castings, 6 cents per pound.

For extra lumber erected in place, $30.00 per 1,000 feet board measure.

The Committtee, therefore, recommends that the President and Clerk of the District be authorized and directed to execute, on behalf of the District, said contract in form prepared according to said advertisement, plans and specifications, as soon as same shall have been executed by said The Toledo Bridge Company, and a bond furnished by said company and approved by the Board of Trustees, in the penal sum of thirty thousand dollars ($30,000.00), said bond to be executed in proper form with a surety company acceptable to the Finance Committee, and approved by the Board.

The Committee recommends that the checks of all, except the three lowest bidders on said work, be returned to said bidders, respectively, and that, when said contract is properly executed according to the above report, the checks of said three lowest bidders be returned to them, respectively.

Respectfully submitted,

(Signed) THOMAS A. SMYTH,
J. P. MALLETTE,
J. C. BRADEN,
Z. R. CARTER,
FRANK WENTER,
THOMAS KELLY,
ALEX. J. JONES,
WM. BOLDENWECK,
Committee on Engineering."

(One enclosure.)

CLOSING OF OFFICES ON DECORATION DAY.

Under the head of new business Mr. Braden presented, and seconded by Mr. Mallette, moved the adoption of the following

ORDER:

Ordered, That the offices of the Sanitary District of Chicago be, and the same are hereby, ordered closed on Tuesday, May 30, 1899, the same being "Decoration Day," a legal holiday.

The motion prevailed unanimously and the President declared the order adopted.

ADJOURNMENT.

On motion of Mr. Carter, seconded by Mr. Wenter, the Board then adjourned.

Joseph F. Haas

Clerk.

PROCEEDINGS

—OF THE—

BOARD OF TRUSTEES

—OF THE—

SANITARY DISTRICT OF CHICAGO.

MAY 31, 1899.

OFFICIAL RECORD

Published by authority of the Board of Trustees of the Sanitary District of Chicago.

REGULAR MEETING.

The four hundred and fortieth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Wednesday, May 31, 1899, at 2 o'clock P. M.

On roll-call Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter — nine members, were present.

President Boldenweck then called the Board to order.

MINUTES.

The minutes of the regular meeting held May 24, 1899, were approved as printed, on motion of Mr. Kelly, seconded by Mr. Mallette.

*VOUCHERS.

The Clerk presented the following vouchers:

PAY ROLLS.

Engineering Department (Chief Engineer's roll, May, 1899)	$ 1,141 67	
Engineering Department (Division of Construction roll, May, 1899)	5,368 73	
Engineering Department (Division of Draughting and Designing roll, May, 1899)	1,650 67	
Engineering Department (Division of Records roll, May, 1899)	682 00	
		$ 8,843 07

Clerical Department (Clerk's roll, May, 1899)		$ 1,043 34
Law Department (Attorney's roll, May, 1899)	$ 1,433 34	
Law Department (Joliet roll, May, 1899)	458 33	
		1,891 67
Treasury Department (Treasurer's roll, May, 1899)		166 67
General Account (General roll, May, 1899)	$ 320 00	
General Account (Trustees' roll, May, 1899)	2,333 34	
		2,653 34
Police Department (Marshal's roll, May, 1899)		2,358 26
Maintenance Account (Pumping Plant roll, May, 1899)		615 84
Total		$17,572 19

ENGINEERING DEPARTMENT.

Isham Randolph (expense)		34 35

LAW DEPARTMENT.

John S. Runnells (services General Counsel, May, 1899)		416 67

GENERAL ACCOUNT.

Isham Randolph (traveling and expense)	$ 216 89	
Moore & Janes, agents (insurance premiums)	360 00	
		576 89

CONSTRUCTION ACCOUNT.

Isham Randolph (Section N—C., M. & N. R. R. Bridge)	$ 205 95	
Hayes Bros. et al. (Section N, reserve on account)	15,000 00	
		15,205 95
Grand total		$ 33,806 05

* To be paid by warrants, with interest coupons attached, drawn against the Tax Levy for 1899.

Mr. Carter, seconded by Mr. Jones, moved that the vouchers as read and shown above be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart (*except as to voucher for Division of Construction pay roll, $5,368.73 on which he voted nay*), Jones, Kelly, Mallette and Wenter—eight (*except as above stated*). Nays—none (*except as above stated*).

Upon this result, the President declared the motion carried.

WEEKLY REPORT ON EMPLOYES.

The Clerk presented a report, in accordance with the Rules, showing the number of persons in the employ of the District for the week ending May 27th, 1899, which was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, May 31, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the week ending May 27, 1899, as the same have been reported to me:

Engineering department	79
Maintenance account	9
Clerical department	5
Law department	8
Treasury department	1
Police department	29
General	3
Total employes	134

Respectfully submitted,

(Signed) JOSEPH F. HAAS,

Clerk."

PAYMENT ON ACCOUNT ON CONTRACT FOR SUPERSTRUCTURE OF SOUTHWEST BOULEVARD BRIDGE.

The Clerk presented and read a report from the Chief Engineer recommending, for reasons set forth in the report, the payment of $15,000 to the J. G. Wagner Company on contract for the superstructure of the Southwest Boulevard Bridge.

Mr. Wenter, seconded by Mr. Eckhart, moved that the report be received and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—nine. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, May 31, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Owing to an error in the bill presented by the J. G. Wagner Company for attaching to the final voucher for the Western Avenue and Southwest Boulevard Bridge that final voucher can not be brought into this meeting, but as they are in need of money I recommend the payment on account of $15,000. The final voucher can come in at the next regular meeting.

I am in receipt of a communication from them this morning acknowledging their error in presenting their claim as it originally came to me, so that there will be no dispute in the final settlement.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,
Chief Engineer."

(Accompanied by voucher).

APPROVAL OF BOND ON CONTRACT FOR SUB AND SUPERSTRUCTURE OF BELT RAILWAY BRIDGE CROSSING MAIN CHANNEL NEAR EAST END OF SECTION K.

Mr. Carter, Chairman, presented, and the Clerk read, a report from the Committee on Finance in reference to the acceptance and approval of the bond of the Toledo Bridge Company on the contract for the sub and superstructure of the Belt Railway Bridge crossing the Main Channel near east end of Section K, in accordance with the action of the Board at the meeting held May 24, 1899 (page 5816 of the Proceedings), the report setting forth that the Committee has examined and approved said bond, and recommending that the same be placed on file with the Clerk.

By unanimous consent the report was ordered received, printed and placed on file.

The following is

THE REPORT:

"CHICAGO, May 29, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—The Committee on Finance, to whom was referred, at the meeting of the Board held May 24th, A. D. 1899, (page 5816 of the Proceedings) for acceptance and approval on behalf of the Board of Trustees, the bond of the Toledo Bridge Company, presented with the contract awarded to said company for the construction of the four-track railway bridge across the Main Channel on Section "K," herewith reports that the Committee has examined said bond and has approved the same, and recommends that the same be placed on file with the Clerk of the District.

Respectfully submitted,

(Signed) Z. R. CARTER,
Chairman.
B. A. ECKHART,
FRANK WENTER,
THOMAS KELLY,
ALEX. J. JONES,
Committee on Finance."

The following is

THE CONTRACT:

"SANITARY DISTRICT OF CHICAGO.

Contract and specifications for substructure and superstructure for the Belt Railway Four-Track Bridge near east end of contract Section "K," on the line of the Main Drainage Channel.

THIS AGREEMENT, Made and entered into this twenty-seventh day of May, A. D. 1899, by and between the Sanitary District of Chicago, of the first part, and The Toledo Bridge Company, a corporation organized and existing

under the laws of the State of Ohio, of the City of Toledo, in the State of Ohio, of the second part.

A—

WITNESSETH: That the said party of the second part has covenanted, contracted and agreed, and by these presents does covenant, contract and agree with the said party of the first part, for the consideration of the payments to be made as provided for herein, to the said party of the second part by the said party of the first part, and under a penalty expressed in a bond bearing even date herewith, at his own proper cost and expense to do all the work and to furnish all material, tools, labor, and all appliances and appurtenances called for by this agreement, in the manner and under the conditions hereinafter stipulated, that are necessary to the complete doing of the work known and distinguished by the specifications herein contained, and the plans accompanying them, as the Belt Railway Company's Four-Track Bridge across Main Channel.

B—

It is further covenanted, contracted and agreed, that the work shall be executed under the direction and supervision of the Chief Engineer of the Sanitary District of Chicago, and his properly authorized agents, and by whose measurements and calculations the quantities and amounts of the several kinds of work performed under this contract shall be determined, and on whose inspection all work shall be accepted or condemned. The said Chief Engineer and his properly authorized agents shall have full power to reject or condemn all materials furnished or work performed under this contract which do not fully conform to its spirit and to the terms and conditions herein expressed; and the Chief Engineer shall decide every engineering question which may arise between the parties hereto relative to the execution thereof and his decision shall be final and binding upon both parties.

C—

Wherever the words "Sanitary District" are used in this contract they shall be understood to mean the Sanitary District of Chicago as represented by the Board of Trustees of the Sanitary District, or their duly authorized and accredited agents.

Wherever the word "Engineer" is used herein it shall be understood to mean the Chief Engineer of the Sanitary District of Chicago, or his properly authorized agents, limited by the particular duties intrusted to them.

Wherever the word "Contractor" is used herein it shall be understood to mean the person or persons or co-partnership or corporation entering into the contract as party of the second part.

We wish to call attention to the following ordinance passed by the Board of Trustees of the Sanitary District of Chicago, June 23, 1897:

"*Be it ordained by the Board of Trustees of the Sanitary District of Chicago:*

"SECTION 1. That in the preparation of all future specifications for contracts for the construction of the Main Channel and auxiliary works, the Engineering Department shall provide that such contracts shall be executed in conformance with the law constituting eight (8) hours a legal day's work in all contracts under the Sanitary District of Chicago, and that in the employment of labor contractors shall be required and specifically agree to give preference to union labor.

"SEC. 2. That all contracts hereafter executed for the works of the Sanitary District of Chicago shall contain provisions constituting eight (8) hours a legal day's work, and forbidding the employment of any employe or employes for a longer period than eight (8) hours in any twenty-four (24) hours, and that said contract shall vest specific authority in the Police Department of the Sanitary District of Chicago to exercise supervision for the enforcement of this provision, and shall provide that the Board of Trustees of the Sanitary District of Chicago shall be empowered in all cases of violation of said eight (8) hour law, to deduct and retain from any money accruing to said contractors a sum as liquidated damages at the rate of five dollars ($5.00) per hour for each employe who shall be required to work in excess of eight (8) hours per day by any contractor on said Canal."

SPECIFICATIONS FOR SUBSTRUCTURE.

The accompanying drawings form part of these specifications. The figured dimensions on the drawings are to be taken whenever they do not agree with the dimensions obtained by scaling from such drawings.

The substructure shall include all excava-

tion, piling, concrete, masonry and auxiliary work.

QUALITY OF MATERIAL.

Stone.

1. All stone used shall be of the best quality Bedford stone, subject to the approval of the Chief Engineer. It shall be sound and durable, free from drys, shakes or flaws, and of a character that will withstand the action of the weather.

2. All stone must be quarried without the excessive use of explosives, and shall be taken out, whenever practicable, by the use of plug and feather. It shall be quarried in time to season against frost before being used.

Cement.

3. The best Portland cement shall be used on this work, brand and quality to be subject to the approval of the Chief Engineer. The weight per cubic foot of Portland cement shall be not less than one hundred (100) pounds. The development of tensile strength for Portland cement shall be not less than four hundred (400) pounds per square inch, after being exposed one (1) day in air and six (6) days in water. All lumpy, dirty or damaged cement shall be rejected; also damaged or short weight packages.

Sand.

4. The sand used shall be coarse, clean and sharp, free from all clay, loam or gravel, and shall be well screened and of a quality approved by the Chief Engineer.

Mortar.

5. When Portland cement mortar is used for beds and joints it shall be mixed in proportion of one (1) part of cement to three (3) parts of sand. When used for pointing it shall be mixed in proportion of one (1) part cement and one (1) part sand.

Piles.

6. Piles shall be of white or burr oak, sound and straight, not less than fourteen (14) inches at the butt and not less than nine (9) inches at the small end, with a uniform taper.

Sheet Piling.

7. Sheet piling and bracing may be of any timber suitable for the purpose, and shall be of such dimensions and placed as directed by the Engineer.

(*No Section 8.*)

CLASS OF WORK.

Excavation.

9. All foundations shall be prepared to receive the masonry by the Contractor who shall make excavations to such a depth and width as directed by the Engineer. The Contractor shall also, where necessary, supply and operate, free of cost, all pumps in order to keep the foundation excavation dry. The Contractor shall provide, drive, frame and place all sheet piling or other timber work necessary to the successful excavation and protection of the foundation excavation, and shall maintain the same until the masonry shall be built, the cost of which shall be covered by the price bid for excavation. All material excavated from the foundations shall be removed and placed in embankments or spoil banks as may be directed by the Engineer within a limit of five hundred (500) feet from the site of the excavation.

Refilling.

10. All refilling ordered by the Engineer shall be included in the price bid for excavation. The term refilling shall be understood to mean all filling around or about the piers or abutments which may be required to restore the theoretical dimensions of the channel at the site of this bridge, and all filling back of abutments which may be necessary to restore the roadbeds of the railways to proper grade and dimensions ready to receive the ballast All to be done as directed by the Engineer.

Foundation Piles.

11. All piles must be driven by a steam hammer, unless otherwise directed by the Engineer. If, in the opinion of the Engineer, any pile proves imperfect or becomes unfit for use under the hammer, or is not driven straight or plumb, it must be removed by the Contractor without extra cost. If so directed by the Engineer, the piles shall have the bark removed. Should any of the piles raise or change their position after being driven, they shall, if so directed by the Engineer, be re-driven at the expense of the Contractor. All piles must be cut level and at proper elevation.

12. Payment for piles shall be made on the following basis: (*a*): Per lineal foot of all piles delivered, on the order of the Engineer, at the site of the work. (*b*): For driving

of piles, per lineal foot below the cut-off line, the price to be designated on the bid.

13. All materials (sheet piling, piles, rubbish, etc.) not required in the finished structure, shall be removed by the Contractor without extra cost, as directed by the Engineer.

Portland Cement Concrete.

14. Concrete shall be made in the proportion of one (1) part of cement, three (3) parts of sand and six (6) parts of broken stone. It shall be mixed by machinery, if so directed by the Engineer, or if mixed by hand, it shall be done upon a suitable platform. Care must be taken to first thoroughly mix the dry cement and sand; after which stone shall be added, together with a proper amount of water, all to be thoroughly mixed; water to be applied by a sprinkling pot. On being placed, the concrete shall have a wetness such as to permit quaking or mobility likened to liver. The stone for concrete shall be of a quality approved by the Engineer, broken into angular pieces of a size small enough to pass through a ring one and one-half (1½) inches in diameter, and be entirely free from dust, sand, dirt or any foreign substance. The stone must be thoroughly drenched with clear water before mixing with the mortar.

15. The concrete shall be deposited in layers not to exceed six (6) inches in thickness, as directed by the Engineer, and to be thoroughly tamped or rammed.

Masonry.

16. All masonry shall consist of pitched draft, rock-faced work built in regular courses, no course to be less than twelve (12) or more than thirty (30) inches in vertical height, and in no case shall a course overlie one of less thickness.

17. The rock face shall not project less than one (1) or more than three (3) inches beyond the pitch line joints.

18. Abutments and piers shall have chiseled draft two (2) inches in width on corners only. The stone shall be rectangular in form. No stretcher shall be less than three (3) or more than six (6) feet long, and the upper or lower bed shall be of a width not less than one and one-half (1½) times the vertical height.

19. Headers must not be less in length than four (4) feet or three (3) times the thickness of the course when the width of the wall will admit of it; and always at least one and one-half (1½) times the vertical height.

20. All stones must be laid on their natural beds, the largest bed down; the beds must be well dressed, parallel and true, and as large as the stone will admit. The beds and sides of the stones must be cut before being laid, so as to form joints not exceeding one-half (½) inch in thickness.

21. The joints shall be horizontal and vertical, and the vertical joints shall break not less than twelve (12) inches. Vertical joints shall be dressed close for at least twelve (12) inches back from the face.

22. The masonry shall consist of headers and stretchers alternately; at least one-fourth (¼) of each course shall be headers. They shall be arranged so as to overlie a stretcher in the course below, and the headers and backing shall be arranged so as to form a bond throughout the masonry; no break shall be less than twelve (12) inches.

23. All masonry must be neatly pointed with Portland cement mortar finely tempered. No masonry shall be covered until it has been inspected and approved by the Chief Engineer, and any defective work shall be removed and rebuilt by the Contractor at his own expense.

24. All stone must be moistened before being laid and before any succeeding course is placed upon it.

25. No spalls shall be used in horizontal joints.

26. All coping must be dressed and set level and to exact elevation given by the Engineer. Care must be used in handling stone not to injure the joints of those already laid; and in case a stone is moved after being set and the joint broken, the stone must be taken out, the mortar thoroughly cleaned from the beds and joints, and the stone reset. Masonry and backing must be laid in good full beds of Portland cement mortar, the face stones of each course of masonry brought to a bearing with a wooden mall, and the interior of each course thoroughly jointed and leveled off before the next course is started.

27. Masonry shall not be laid in freezing weather without written permission from the Chief Engineer. Any masonry so laid in freezing weather shall have joints raked out

and pointed in the spring at the expense of the Contractor. Should masonry be laid in freezing weather, the stone shall be sufficiently warmed to remove all ice from the surface, and the mortar mixed with brine, made by dissolving one (1) pound of salt to eighteen (18) gallons of water when the temperature is thirty-two (32) degrees Fahrenheit, adding one (1) ounce of salt for each degree the temperature is below thirty-two (32) degrees.

Pointing.

28. All masonry shall be pointed so as to fill the joint solid. The surface of the wall must be scraped clean and the joints freed of all mortar to a depth of one and one-half (1½) inches, and refilled solid by using proper ramming tools. Joints must be well wet before pointing.

Cramps.

29. Cramps shall be of such number and dimensions as shown on plan; these cramps to be fitted into the course after it is laid and to be countersunk; and all the holes shall be filled with grout made of Portland cement after the cramps are inserted. Cost of furnishing and placing these cramps shall be included in the price bid per cubic yard for masonry.

Measurements.

30. Measurement of all masonry will be by the cubic yard, and payment will be made upon the actual cubical contents of the completed masonry within the lines as shown on the plans. The price bid per cubic yard for masonry shall include the drain on the back of the abutments as shown on the plans.

SPECIFICATIONS FOR SUPERSTRUCTURE—PLANS.

1. All plans and drawings prepared by the Sanitary District of Chicago for this work, with all notes, dimensions, figures and corrections thereon, shall be considered a part of these specifications; and in the event of any discrepancy between plans and specifications, the judgment of the Chief Engineer shall be decisive thereon.

2. All shop plans required shall be made by and at the expense of the Contractor, and submitted to the Chief Engineer for approval, before beginning work, and at least six (6) sets of prints of such approved plans shall be furnished the Sanitary District free of cost. No alterations of approved plans will be permitted to be made by the Contractor without the written consent of the Chief Engineer.

3. The approval of said plans by the Chief Engineer will not relieve the Contractor from the responsibility of errors thereon.

4. Plans furnished by the Sanitary District shall be carefully checked by the Contractor before beginning work. Should errors be discovered, the Chief Engineer's attention should be called to the same and corrections made, after which the Contractor will be responsible for all errors which may occur or may have occurred.

5. All such working drawings submitted shall have a uniform size of twenty-six (26) inches by forty (40) inches inside border lines with border margin of one-half (½) inch. When submitted for approval, a complete set of such drawings shall be presented.

QUALITY OF MATERIAL—STEEL.

Character.

6. All steel shall be uniform in quality and made by the Open Hearth process.

7. Tests shall be made upon pieces cut from the finished material, and shall be not less than one-half (½) square inch in sectional area. Two (2) pieces, one (1) for tensile test, and one (1) for bending test shall be furnished for each blow or cast, and so selected that each heat or furnace full of billets, blooms or slabs shall be represented by at least one (1) test to prove the condition of the metal after reheating, rolling, etc.

Medium Steel Tests.

8. When tested in specimens as above, medium steel shall have an ultimate tensile strength of from sixty thousand (60,000) to sixty-eight thousand (68,000) pounds per square inch, an elastic limit of not less than thirty-five thousand (35,000) pounds per square inch, shall elongate not less than twenty-two (22) per cent. in eight (8) inches, and show a reduction of area at point of fracture of not less than forty-five (45) per cent.

9. The test piece must also bend cold one hundred and eighty (180) degrees around a curve whose diameter is equal to the thickness of the piece without crack or flaw on convex side of bend.

10. A hole punched for a three-quarter (¾) inch rivet, one and one-half (1½) inches from the edge of plate, shall be capable of being enlarged by drifting to one and one-eighth (1⅛) inches in diameter without sign of fracture.

11. Full sized steel eye bars, when tested to destruction, must show an ultimate strength of at least 56,000 pounds per square inch, an elastic limit of not less than 30,000 pounds per square inch, and shall elongate at least twenty-five (25) per cent. in a gauged length of twelve (12) inches at the point of fracture and fifteen (15) per cent. in ten feet of bar and a reduction of area at fracture of at least twenty-five (25) per cent.

12. For steel pins the elongation may be five (5) per cent. less and the reduction at point of fracture ten (10) per cent. less than specified.

Soft Steel Tests.

13. When tested in specimens as selected and described above, soft steel shall have an ultimate tensile strength of from 52,000 to 60,000 pounds per square inch, an elastic limit of not less than 30,000 pounds per square inch, and shall elongate not less than twenty-five (25) per cent. in eight (8) inches, and show a reduction in area at point of fracture of not less than fifty (50 per cent., except in web plates over thirty-six (36) inches wide, when the elongation will be reduced to twenty (20) per cent. and the reduction of area to forty (40) per cent. It must also bend cold through 180 degrees and close down upon itself without showing sign of fracture on convex side of bend. A hole punched for three-quarter (¾) inch rivet, and one and one-half (1½) inches from the edge of plate, shall be capable of being enlarged by drifting to one and one-half (1½) inches in diameter without sign of fracture.

Rivet Steel.

14. Rivet steel shall have an ultimate strength of fifty thousand (50.000) to fifty-eight (58,000) pounds, and an elastic limit not less than fifty-five (55) per cent. of the ultimate; an elongation of not less than twenty-seven (27) per cent., and must bend one hundred and eighty (180) degrees flat on itself without sign of fracture on the convex side of the bend.

15. Specimens taken from all grades of steel, after being heated to a light cherry red (as seen in the dark) and quenched in water of eighty-two (82) degrees Fahrenheit, must conform to the bending requirements above.

Chemical Analysis.

16. The chemical analysis for carbon and phosphorus of each blow or cast must be furnished to the Engineer, or his inspectors, before any of the material rolled from said blow or cast is shipped from the mill. Phosphorus must not exceed six one-hundredths (.06) per cent. for acid steel, or four one-hundredths (.04) per cent. for basic steel.

Chippings and Alterations.

17. All blooms, billets or slabs shall be examined for surface defects, flaws or blow holes before being rolled into the finished sections, and such chippings and alterations made as will secure perfect solidity in the finished sections.

Marking.

18. The original blow or cast number must be painted or stamped on all blooms, billets or slabs, in order to identify the material throughout the various processes of manufacture; and the original blow or cast number, together with the furnace heat number, must be stamped on each piece of finished material from said blow or heat.

Finish.

19. All finished, rolled material must present a smooth, clean surface, free from buckles, flaws, cracks, ragged edges or any other defects, and must be straight throughout and true to section.

Brittle Steel.

20. No steel which proves brittle shall be used under any circumstances; if it develops this character at any stage of its manufacture, it shall be at once condemned and other material used. The object of the more particular clauses, hereto relating, being to guard against the possibility of the use of this class of metal.

Steel Castings.

21. All steel castings shall have an ultimate strength of not less than sixty-two thousand five hundred (62,500) pounds per square inch, an elastic limit of not less than thirty thousand (30,000) pounds per square inch, shall elongate not less than fifteen (15) per cent in eight (8) inches and show a re-

duction at point of fracture of not less than twenty (20) per cent. The amount of phosphorus contained shall not exceed eight one-hundredths (.08) per cent. All steel castings shall be sound and free from blow holes and roughness, sponginess, pitting, shrinkage-cracks and other cracks, cavities, etc., and shall be thoroughly annealed according to the best practice. Each cast shall be so made that sufficient number of test pieces can be cut as to enable the Engineer or Inspector to satisfy himself of its quality.

Cast Iron.

22. Cast iron must be the best quality of soft gray iron. The castings must be free from flaws, ragged edges, or any other defects impairing its efficiency or appearance; and bars of a section one (1) inch square, placed four (4) feet six (6) inches between supports, must be strong enough to bear a weight of five hundred (500) pounds placed half way between supports.

Phosphor Bronze.

23. Phosphor bronze shall be of the best quality for the purpose for which it is to be used. The castings shall contain eighty-eight (88) per cent of copper and twelve (12) per cent of phosphorized tin; the phosphorized tin to contain five (5) per cent of phosphorus. Upon each casting shall be cast suitable test pieces which, in breaking, must show a good uniform metal, and when broken in testing machine, shall show at least forty thousand (40,000) pounds ultimate tensile strength.

Cement Filling for Turntable Tracks.

24. This cement shall be made of eighty (80) per cent brimstone, five (5) per cent asphaltum and fifteen (15) per cent bituminous limestone (by weight). These quantities shall be placed in a heating vessel at the same time and heated up to a temperature of three hundred (300) degrees Fahrenheit for about thirty (30) minutes. The temperature shall be reduced to about two hundred and fifty (250) degrees in order to let the heavy foam settle, after which the material shall be run into moulds for cooling off. This material shall be remelted without foaming and run under the tracks in such manner as to insure the filling of all the voids.

The material used in this composition shall be as follows:

Brimstone—commercial, unmixed (seconds). Asphalt containing ninety-three (93) per cent of asphaltic bitumen, mined and refined by the Standard Asphalt Company, Cal., (refined solid). Bituminous limestone (Wasatsh) mined in Utah and pulverized to cyclone size by the Assyrian Asphalt Company.

Asphaltic Paint.

25. All masonry bolts imbedded in above mentioned cement filling shall be coated with a composition made as follows;

26. To forty-five (45) per cent melted asphalt add fifty-five per cent pulverized green limestone which has previously been heated up to four hundred (400) degrees. This to be thoroughly mixed at a temperature of three hundred and fifty (350) degrees. Run this into moulds to cool off. Remelt this material and coat the bolts and the bottom of the base casting as well as the cement filling of the same.

27. The filling to be finished around the edges of the track with a mixture consisting of twenty-five (25) per cent of this paint and seventy-five (75) per cent of clean, coarse, sharp sand, heated to the proper degree when applied and this to be coated with the asphalt paint.

Ties and Guard Timber.

28. All timber to be first quality, long leaf yellow heart pine, entirely free from sap and to be cut from live trees, grown south of the south line of Tennessee. To be straight, square edged, free from shakes, loose or rotten knots or other material defects. To be planed on all sides to exact dimensions given on plans.

29. The guard timber shall have a length of not less than twenty-four (24) feet. The ties to be cut with square ends and the length not to vary more than one-quarter (¼) inch from length given on plans.

WORKMANSHIP.

Character of Work.

30. All work must be done in a strictly first-class manner and shall at all times be subject to thorough and careful inspection.

31. Finished pieces shall be true to size section and line, straight and out of wind at all points; and all machine, rivet and smith work done upon them shall be of the best character.

Straightening.

32. All material must be carefully straightened before being laid off.

Marking.

33. All parts which are given a descriptive letter or number in the drawings shall have that letter or number stenciled on them before shipment. Eye bars shall have it stamped on the edge at the extreme end of the bar.

DETAILS OF CONSTRUCTION.

Eye Bars.

34. All heads of eye bars shall be formed by upsetting on the solid bar, or by a process approved by the Engineer. Upsets shall be free from folds. Heads shall be clean, full sized forgings, formed centrally on the bar in true line and out of wind, and shall be free from lateral fissures, incipient cracks or flaws of any kind. In upsetting steel bars or rods, sharp angles must be avoided where the upset joins the bar.

Annealing.

35. All steel tension members which have been heated, shall, after work on them is completed, be thoroughly annealed by heating them uniformly to a cherry-red heat, and allowing them to cool slowly.

Boring.

36. Bars of the same class and belongings to the same panel shall be bored at the same temperature. The pin holes and eye bars shall be bored to exact sizes and distances, and to a true perpendicular to the line of strain.

37. The pin hole shall be in the middle of the head and in the center line of the bar. Bars which are to be placed side by side in the bridge, shall, if piled on each other, allow the pins to pass through at both ends without driving.

38. No error in the length of bar or diameter of pin hole exceeding one sixty-fourth (1-64) of an inch will be allowed.

Tie Rods.

39. Rods used for ties or counters shall be fabricated with the same care and precision as is prescribed for eye bars. Screw ends shall be upset to such diameter as to insure breaking in the body of the bar. All screw ends shall have truncated V threads, United States standards, proportions and sizes.

Sleeve Nuts and Clevises.

40. Sleeve nuts, clevises or other attachments used for adjustment must be of sufficient strength to break the bar to which they are attached. Pin holes in clevises to be bored the size of the hole not to exceed that of the pin more than one thirty-second (1-32) of an inch.

41. Pins must be turned true to size and straight. No error of more than one-fiftieth (1-50) of an inch in diameter will be allowed in chord pins. They shall be provided with pilot nuts for erection.

Pins.

42. Pins connecting laterals with other members shall be turned down to a diameter of not more than one thirty-second (1-32) of an inch smaller than the pin hole.

Splices.

43. Abutting joints shall be milled off to exact lengths and square to the line of the chord or to exact bevel, where required.

44. Pin holes shall be bored true to the line of strain and correct as to position.

45. No error exceeding one thirty-second (1-32) of an inch in length of part, or in position of pin hole, will be allowed.

Web Plates.

46. For all girders, web plates must be so arranged as not to project beyond the faces of flange angles, nor be more than one-sixteenth (1-16) of an inch less on each edge, than the distance out to out of the flange angles.

Matching.

47. After the splice plates are riveted on in the shops, each line of chords shall be assembled, the joints matched, their abutting surfaces brought to a tight fit by use of clamps, and all the rivet holes in the ends of chords and splices shall be reamed to an exact match and fit. Match marks shall then be made in each piece.

Riveting.

48. All rivets with crooked heads, or heads not formed centrally on the shank, or rivets which are loose, either in the hole or under the shoulder, shall be cut out and replaced with good rivets.

49. The diameter of the hole shall not exceed the diameter of the rivet more than one-sixteenth (1-16) of an inch.

50. All joint rivet holes shall be so accurately spaced, that rivets of the proper size can be passed through all the holes in the joint after the parts are placed in position, without the use of drift pins.

Reaming and Fitting.

51. All riveted work in steel shall be reamed.

52. The connection for stringers and floor beams, and for posts and floor beams and turntable drum, must be accurately matched and reamed to fit before leaving the shop.

53. All splice plates in which the holes are mismatched, either in the plates themselves or with the adjoining chord or flange, shall be matched and the holes reamed to fit before leaving the shop.

54. No inaccurate or otherwise defective work will be accepted under any circumstances in connection joints or riveted work.

55. The riveted field connections of floor beams, stringers, posts and struts must be accurately matched before leaving the shops, and all unmatched holes reamed to fit; the ends of floor beams and stringers must be machine faced to exact lengths.

56. Wherever practicable, rivets must be machine driven, both in shop and field.

57. In riveted steel work the punch hole shall be one-eighth (⅛) inch less on the die side than size required, and shall then be reamed to fit.

TURNTABLE, ETC.

Base Casting.

58. The base casting shall be of cast iron. It shall be tool finished on the face to receive the rack castings, and on the top to receive the track, and the latter given an exact and true level. After the Engineer has ascertained that the track is perfectly level, the specified cement filling shall be run under the tracks. Special care must be taken to fill all voids.

Center Castings.

59. The center casting shall be of cast iron, turned down to receive the cast steel spider and steel plates connecting with radial roller arms. It shall be the true center for the track drum and pitch circle.

Gear Circle.

60. The rack circle shall be of cast steel, in sections, as shown on plans, milled to exact lengths; the back shall be tool finished and secured to base castings with bolts, as shown on drawings. The pitch shall be as given on plans, and the pitch line shall be absolutely true.

Tracks.

61. The upper and lower tracks shall be of cast steel, tool finished on upper and lower sides, and set perfectly level and well secured in place by bolts, as shown on plans.

Rollers.

62. Rollers shall be made of cast steel, and of dimensions as shown on plans. They shall be of uniform size and true bevel, and held in place by two channel rims. Outside they shall bear against faced and bored phosphor bronze washers. Each journal shall have proper provision for oiling.

Drum.

63. The drum shall be built to a true circle, and care shall be taken to have lower edge of web plate at all points to bear against the track. The upper and lower edges of web plate must be planed parallel. Flanges of bottom angles shall have a uniform bearing againg the track, and stiffeners to fit tightly to flanges. The drum shall be held in place and form by radial struts abutting against a cast steel spider with phosphor bronze bushing.

Boxes.

64. Boxes supporting shafting shall be of cast steel, and proper provision made for babbiting.

Wedges.

65. Wedges shall be made of steel castings and bearing blocks shall be of cast iron. All sliding and bearing surfaces shall be tool finished.

Latches.

66. Latches as shown on drawings shall be provided for, but no provision shall be made for operating the same.

Patterns.

67. All patterns shall be made especially for this work and shall, after completion of work, become the property of the Sanitary District of Chicago. They shall be delivered by the Contractor at such place or places as directed by the Chief Engineer.

Raising of Ends.

68. The difference of elevation of the ends of the bridge when closed and open shall have the same ratio to the actual figured total deflection of ends as the ratio given on strain sheets between amount of ends raised and assumed total deflection. The difference between the total deflection and the amount that the ends are raised shall be taken out by shortening the eye bars in top chords in the two panels next to center tower.

Cambre.

69. The bridges shall be given a cambre not less than the deflection under extreme loads.

INSPECTION AND TESTS.

Specimens.

70. The Contractor shall furnish complete facilities for inspection of material and workmanship. Small specimens for testing of material and also the necessary labor shall be furnished by Contractor without charge, when called for by the Engineer or Inspector. Inspectors will be retained by the Sanitary District with full power to reject all work or material which does not in every way conform to the letter and spirit of the specifications.

Mill Testing.

71. All material shall be inspected at the mills where it is rolled.

72. Test specimens shall fairly represent material to be tested, and shall not in any way be worked on to alter quality before testing. They shall be cut whenever practicable so as to retain two opposite sides as they come from the rolls. Rods not exceeding one (1) square inch shall be tested in full size specimens.

73. Regular bending specimens shall be taken, one for every tensile test. They shall have the rough edges planed off, and shall be duplicates of and cut from the same originals, as tensile tests for the same material.

74. Tests shall be sufficient in number to fairly represent, in the judgment of the Engineer, the material to be inspected; there shall, however, be no more than two (2) tests, *i. e.*, two (2) tensile and two (2) bending specimens, for every twenty pieces in the order.

75. The passing of any material at the mills shall not prevent its subsequent rejection for cause. If found defective after delivery, such material shall be replaced at the expense of the Contractor.

Testing Finished Members.

76. From time to time as the work proceeds, the Engineer or his Inspector may select from the finished material full-sized members for testing to destruction.

77. Of eye bars or rods so selected, there shall not be more than three (3) for every hundred (100). These must break in the body in three (3) cases out of four (4).

78. If three-fourths (¾) of the bars so selected and tested, from time to time, fulfill requirements for strength of body, all bars manufactured to that time shall be accepted; if less, testing shall be continued at expense of Contractor until, in the opinion of the Engineer, enough evidence exists that at least three-fourths (¾) of all bars fulfill said requirements.

79. All finished members taken for testing shall be paid for at cost price, less its scrap value, if fulfilling requirements of specifications; if not, Contractor shall not be paid for them.

Final Test.

80. On completion of the structure, the bridge may be subjected to the following test: Two coupled consolidation engines shall run on the bridge at a speed of fifteen miles per hours, and when the leading engine is over the center of the bridge, both engines shall be reversed, and no permanent change shall take place in any part of the structure.

81. The bridge may then be fully loaded with engines of the above class, and after remaining under this load for five (5) minutes shall be found not to deflect more than one twelve hundredth (1-1200) of its length, and upon the removal of the load shall return to its original cambre.

PAINTING AND SHIPPING.

Painting.

82. All the iron work before leaving the shops shall receive one good coat of boiled oil well rubbed in and surplus oil taken off.

83. In the riveted work the surfaces coming in contact shall be painted with two (2) coats of red lead paint. Bottom of bed plates, bearing plates, and any parts which are not accessible for painting after erection,

shall have two (2) coats of paint of the same brand.

84. After the structures are erected, the iron work shall be thoroughly and evenly painted with two (2) additional coats of red lead paint; the first coat to be pure red lead (ground dry) and raw linseed oil, in proportions thirty-three (33) pounds of red lead to one (1) gallon of oil; the second coat shall be in proportions of thirty-three (33) pounds of red lead to one (1) gallon of oil and one (1) pound of best lamp black to each five (5) gallons of oil used.

85. All finished surfaces shall be coated with white lead and tallow before being shipped from the shop.

86. No painting shall be done in wet or freezing weather.

Shipping.

87. All parts shall be carefully loaded, so as to avoid injury in transportation, and shall be at Contractor's risk until erected and ready for the rails.

88. All screw ends shall be wrapped with twine before shipment.

89. All pins and small parts must be securely boxed, and the boxes plainly marked. The weights of large pieces must be marked on them. The invoices shall state the contents of each box and the weight and description of each piece that is not boxed, and two (2) copies of each invoice shall be furnished the Sanitary District of Chicago.

Erection.

90. The Contractor shall furnish all staging and false work, shall erect and adjust all the metal work, shall furnish and put in place all floor timbers, timber guards, also coating of masonry bolts and securing them in place.

91. The Contractor shall so conduct all his operations as not to impede the operations of the road, or interfere with the work of other contractors, or close any thoroughfare by land or water, except by written consent of the Chief Engineer.

92. The Contractor shall assume all risks of accidents to men or material prior to the acceptance of the finished structure. The Contractor must also remove all false work, piling and other obstructions, or unsightly material produced by his operations.

Final Acceptance.

93. Any material or workmanship which does not satisfy the requirements of these specifications may be rejected by the Chief Engineer at any time before the final acceptance of the work, and the Contractor shall make good all deficiencies at his own cost. The fact that the authorized Inspectors have accepted said material or workmanship shall not make the Sanitary District liable for extra cost above that specified in the contract, for replacing same with material or workmanship accepted by the Chief Engineer on final acceptance.

GENERAL CONDITIONS.

Changes in Plans.

94. The amount of masonry figured from the plans is approximate, and the Sanitary District reserves the right to make alterations in the line, grade, plan, form or dimensions of the work herein provided for, either before or after beginning the construction thereof; provided, that if alterations are made the general character of the work as a whole is not thereby changed. If such alterations diminish the quantity of work to be done, they shall not constitute a claim for damages nor for anticipated profits on the work that may be dispensed with; if they increase the amount of work, such increase shall be paid for according to the quantity of work actually done, and at prices and rates established for such work under this contract.

95. Notice of change of plan must be given to the Contractor in writing, and it is expressly agreed that no alterations or additions or extra work are to be paid for unless directed in writing.

Extra Work.

96. All claims for extra labor or material furnished by the Contractor or for damages from any cause whatever must be reported to the Engineer at the time such labor or material are furnished or such damages occur, and they must also be presented to him in writing at the end of the month; provided, that nothing shall be paid for as extra work that can be classified under any of the heads upon which prices are fixed by this contract.

97. Whenever work is required to be done, which is not now contemplated or covered by the prices hereinafter given, the Engineer, under the direction of the Engineering Com-

mittee, shall fix such prices for the work as he shall consider just and equitable, and the Contractor shall abide by such prices, provided, he enters upon such work with a full knowledge of the prices so fixed by the Engineer; but if the contractor declines executing said work at the prices fixed by the Engineer, then the Sanitary District may enter into contract with any person or persons for its execution the same as if this contract had never existed; and if extra work or work not provided for in this contract is performed by the Contractor before prices have been fixed for such work, then the Engineer shall estimate the same at such prices as he shall deem just and reasonable, and his decision shall be final, and the said Contractor shall accept such prices in full satisfaction of all demands against the Sanitary District for said extra work; provided, that, if the extra work done under this contract is of such a nature, being distinct from other work being done by said Contractor, so that the actual cost of the same can be determined, then the said Contractor shall receive, and the Sanitary District shall pay, in full satisfaction for the same, the actual cost of the work with fifteen (15) per cent added. Provided, further, that nothing shall be deemed extra work which can be measured or estimated under the provisions of this contract.

Responsibility of Contractor.

98. It is further agreed that in all cases of question or dispute arising or growing out of this contract in any way regarding the cost or value of extras, variations, allowances, deductions or the amount of damages in any manner growing out of the violation of this contract, the decision of the Engineer shall be final and binding on both parties hereto.

99. All the work provided for in this contract is to be done under the direction and supervision of the Chief Engineer and his properly authorized agents. The Contractor is to be guided by the lines, stakes, marks and grades given by them, and is to carefully preserve the same as far as possible during the progress of the work, and is to furnish all needed facilities, without charge therefor, to enable the Engineer to properly give lines and grades and to measure the work from time to time.

100. All work will be subject to inspection by the said Engineer and his said agents, and if not in accordance with the requirements of this contract, is to be made good by the Contractor. The Contractor will be responsible for the entire work until completed and accepted by the Sanitary District. The Contractor will be required to give his personal attention to the fulfillment of this contract and to the execution of the work. He is to keep the same under his control, and will not be allowed to sublet all or any part of it; it being distinctly understood and agreed that the sub-letting of the work covered by this contract, or any part thereof, shall, after thirty (30) days' notice, work a forfeiture of the contract at the option of the Sanitary District.

101. The Contractor will be required to safely maintain all traffic on the temporary structures built by the Sanitary District from the time he takes possession. He shall at no time be allowed to obstruct, impede or endanger the traffic on said structures. He will be required to make all necessary changes in the temporary structures carrying the tracks of the roads so as to enable him to construct the work herein provided for, without additional expense to the Sanitary District.

102. The Contractor will not be allowed to assign, by power of attorney or otherwise, any portion of the moneys that may become due through the workings of this contract. In case the Contractor fails to comply with the provisions of this contract, as to progress and character of work, he shall be duly notified in writing, and thirty (30) days after the giving of said notice the party of the first part may declare this contract forfeited, if there is a substantial failure to comply with its provisions.

Tools.

103. The Contractor is to furnish all the tools of every description, including pumps, cars and tracks necessary to the full and complete carrying out of this contract, and on completion of the work, is to remove all tools, buildings and material of all kinds from the right of way of the Sanitary District.

Precautions.

104. Whatever precautions may be necessary to render any portion of the work more secure in any respect, or to decrease the liability of accident from any cause, or to avoid contingencies which are liable to delay the completion of the work, shall be taken by the Contractor.

Workmen.

105. The Contractor shall employ competent foremen and laborers and shall discharge, at the request of the Engineer, any incompetent or unfaithful men in his employ. None but men expert in their respective branches of work will be employed where special skill is required, and in the employment of men preference shall be given to Union laborers.

106. It is especially understood and agreed that eight (8) hours shall constitute a day's work, and that no workman shall be employed or required to work more than eight (8) hours out of any twenty-four (24) hours, and no work in excess of that time shall be allowed.

107. In the event of any violation of the above eight (8) hour provision, it is agreed hereby that the said District shall, and that it is duly authorized to retain from any money due or to become due at any time from it to the second party, as liquidated damages, the sum of five (5) dollars per hour for each hour that any employe shall be required to work in excess of eight (8) hours per day, pursuant to the terms and conditions of the ordinance adopted June 23, 1897, attached hereto.

Patents.

108. It is further agreed that the second party shall indemnify, keep and save harmless said first party from all liabilities, judgments, costs, damages and expenses which may in any wise come against said first party, or which may result on account of any infringement of any patent by means of the use of any materials, machinery, device, or apparatus used in the performance of this contract, or of designs furnished by second party and accepted by the Sanitary District; and in the event of any claim or suit or action at law or equity of any kind whatsoever being made or brought against said first party, then first party shall have the right to retain a sufficient amount of money in the same manner and upon the same conditions as hereinafter in the next following clause of this contract provided.

Damages.

109. If any damage shall be done by the Contractor or by any person or persons in his employ to the owner or occupants of land, or to any property adjoining or in the vicinity of the work herein contracted to be done, or to a neighboring Contractor, the Engineer shall have the right to estimate the amount of said damage, and to cause the Sanitary District to pay the same to the said owner or occupant, and the amount so paid for said damages shall be deducted from the money due said Contractor under said contract.

110. Said Contractor covenants and agrees to pay all damages for any personal injury sustained by any person growing out of any act or doing of himself or his employes that is in the nature of a legal liability, and he hereby agrees to indemnify and to save the Sanitary District harmless against all suits or actions of every name and description brought against the said Sanitary District for or on account of any such injuries or such damages received or sustained by any person or persons by or from said Contractor, his servants, agents or employes, in the execution of said work; or by or in consequence of any negligence in guarding the same; or by or on account of any act or omission of said Contractor, his agents or employes; and the said Contractor further agrees that so much of the money due to him under and by virtue of this contract, as shall be considered necessary by the Board of Trustees of the Sanitary District, may be retained by the said Sanitary District until such suit or claim for damages, as aforesaid, shall have been settled, and evidence to that effect furnished to the satisfaction of the said Board of Trustees.

Time.

111. The Contractor agrees to begin the work covered by this contract within fifteen (15) days after said contract shall have been executed and to prosecute the building of the structure herein provided for so as to complete the same ready for traffic on or before October 1, 1899.

Prices.

112. In consideration of the said work being carried on and completed in the time and manner as hereinbefore specified, the said party of the first part agrees to pay to the said party of the second part the following amounts, and the said party of the second part agrees to receive and accept the same as full compensation for the performance of the work, including the furnishing of the materials, tools, labor, etc., to-wit:

(*a*) For each cubic yard of excavation, as specified, the sum of forty-five one hundredths dollars (45c).

(*b*) For piles delivered at site of the work, as specified, per lineal foot, the sum of sixteen hundredths dollars (16c).

(*c*) For driving piles in foundations, per lineal foot, as specified, the sum of nineteen hundredths dollars 19c).

(*d*) For each cubic yard of Portland cement concrete, as specified, in abutments and piers, the sum of five and sixty hundredths dollars ($5.60).

(*e*) For each cubic yard completed masonry in abutments and piers, the sum of eleven dollars ($11.00).

(*f*) For the superstructure complete, as specified, the sum of one hundred and thirty-one thousand and two hundred dollars ($131,-200.00).

(*g*) For extra medium or soft steel erected in place, the sum of five and one-half cents (5½c) per pound.

(*h*) For extra steel castings erected in place, the sum of six cents (6c) per pound.

(*i*) For extra lumber erected in place, the sum of thirty dollars ($30.00) per thousand feet, B. M.

113. The prices proposed must include all royalties for patents or patented material and appliances used in the construction of the work described in the specifications and agreements; and before final payment is made the Contractor shall furnish a satisfactory guarantee against all claims.

Time and Manner of Payment.

114. It is agreed by the party of the first part that on or before the 10th and 25th days of each month during the progress of the work, and subject to the provisions hereinbefore specified under the head of "Time," payment will be made to the said party of the second part to the amount of eighty-seven and one-half (87½) per cent. of the contract price of the substructure of the approximate amount of work done during the previous half month, upon written certificate from the Engineer that such approximate amount of work has been done during that period: twelve and one-half (12½) per cent. being reserved until the completion and acceptance of the whole work.

115. It is agreed by the party of the first part that when the entire iron work shall have been delivered at the site of erection, payment shall be made by the party of the second part to the amount of sixty (60) per cent. of the contract price of the superstructure, upon written certificate from the Engineer that such approximate amount of work has been done. The remaining forty (40) per cent. to be paid within thirty (30) days after the completion of the work and its acceptance by the party of the first part.

Certificate.

116. Upon the completion of the substructure in accordance with the specifications and contract, to the full satisfaction of the Chief Engineer, and upon the inspection of same and the issuance of the final certificate by the Chief Engineer, the said party of the first part agrees to pay to the said party of the second part the amounts shown to be due to said second party by the said certificate of said Chief Engineer, including the twelve and one-half (12½) per cent. reserved.

117. Upon the completion of the superstructure in accordance with the specifications and contract, to the full satisfaction of the Chief Engineer, and upon the inspection of same and the issuance of the final certificate by the Chief Engineer, the said party of the first part agrees to pay to the said party of the second part the amount shown to be due to the said party of the second part by the said certificate of the said Chief Engineer.

Failure to Complete.

118. It is further agreed by the said party of the second part that, if the work to be done under this contract on the substructure shall be abandoned, or if it shall be assigned by him, or if he loses control of the work from any cause, excepting acts of God and the public enemy, or if the rate of progress is not such as to insure its completion within the time specified, or if at any time the Engineer shall be of the opinion, and shall so certify in writing to the said party of the first part, that said work or any part thereof is unnecessarily and unreasonably delayed, or that the Contractor is willfully and persistently violating any of the conditions or covenants of this contract, or is not fulfilling said contract in good faith, the said party of the first part shall have the power to notify the said Contractor to discontinue all work, or any part thereof, as may be designated by the said party of the first part, and the said party of the first part shall thereupon have the power either to complete said work by

contract or to employ such men and teams and to obtain such machinery, implements and tools and to purchase such material as the said Engineer may deem necessary to complete the work herein described, or any part thereof. And, in so doing, said Engineer may use such tools, implements and materials as may be found upon the line of said work. The cost of doing such work by the said Engineer shall be charged to the said Contractor, and the expense so charged shall be deducted and paid by the said party of the first part out of such moneys as may be due, or may at any time thereafter become due to said Contractor, under and by virtue of this contract, or any part thereof, so far as the same shall suffice therefor; and the balance, if any, shall be paid by said Contractor on demand.

119. The entire metal work for the structure herein provided for shall be delivered at the site of the erection on or before August 1st, 1899, and all the work of the superstructure to be done under this contract shall be completed and ready for inspection on or before October 1st, 1899.

120. Should there be a failure by the second party to deliver said iron work of the character and strength herein provided for at the time herein specified, or if, after delivery of same as herein provided, said contractor should fail financially, either before or after having been paid the sixty (60) per cent. of the contract price as hereinbefore provided, and be unable to carry out said contract and complete said work, then, in that case, the said party of the first part shall have the power to complete said work by contract or otherwise, at its discretion, and charge up the cost of so completing the said work to said Contractor. Should the amount remaining unpaid of the contract price not suffice therefor then said Contractor and his bondsmen shall be held liable for the deficiency.

121. If at any time during the progress of said work, the said Contractor shall fail or neglect to pay for labor performed or material furnished upon said work for ten (10) days after it shall have become due, then the party of the first part shall have power to pay for such labor or for materials, tools, explosives, machinery, appliances, fuel, provisions or supplies of any sort or kind used or consumed in, upon or on account of the work covered by this contract; the party of the first part shall have the power to pay for such labor or materials, explosives, machinery, appliances, fuel, provisions or supplies of whatsoever sort or kind, out of moneys that may be due to said Contractor, and said amount so paid shall be retained out of any money due or to become due to said Contractor. In any such case the party of the first part is hereby authorized and empowered by the party of the second part to ascertain by its Engineer the amounts due or owing from said Contractor to any laborer or laborers or to any person or persons, for materials, tools, explosives, machinery, appliances, fuel, provisions or supplies of any sort or kind consumed upon, in or on account of the work covered by this contract in such manner and upon such proofs as the said Engineer may deem sufficient.

Contractor's Bond.

122. The Contractor shall furnish a bond in the sum of thirty-thousand ($30,000) dollars for the substructure and superstructure of the Belt Railway Company's Four Track Bridge crossing the Main Channel of the Sanitary District of Chicago, near east end of Contract Section "K," with good and sufficient sureties, the same to be satisfactory to the Board of Trustees of the Sanitary District, conditioned upon the faithful performance of all the terms and conditions of this contract; and should the sureties on said bond at any time fail financially, or be, in the opinion of the said Board of Trustees, insufficient security for the penalty of said bond, then, in that case, they may, on giving ten (10) days notice thereof in writing, require said Contractor to furnish a new and additional bond in the place of the bond so having become insufficient or worthless.

Final Payment.

123. The said party of the second part further agrees that he shall not be entitled to demand or receive final payment for any portion of the aforesaid work or materials except in the manner set forth in this agreement, nor until all of the stipulations hereinbefore mentioned are complied with, and the said Chief Engineer shall have given his certificate to that effect; whereupon the said party of the first part will, at the expiration of thirty (30) days after such completion and delivery of such certificate, pay, and it hereby binds itself to pay, the said party of the second part, in cash, the whole amount of money accruing to said second party under

this contract, excepting such sum or sums of money as may be lawfully retained under any of the provisions of this contract hereinbefore set forth. Provided, that nothing herein contained shall be construed to affect the right hereby reserved of the said part of the first part to reject the whole or any portion of the aforesaid work should the said certificate be found to be inconsistent with the terms of this agreement or otherwise improperly given.

IN WITNESS WHEREOF, On the day and year first above written, the said Sanitary District of Chicago has caused this agreement to be signed by its President and attested by its Clerk, and its corporate seal to be hereto affixed, and the said party of the second part has hereunto set its hand..... and seal.....

The Sanitary District of Chicago.

(Signed) By WILLIAM BOLDENWECK,
President.

Attest:
JOSEPH F. HAAS,
[SEAL] *Clerk.*

[SEAL] *The Toledo Bridge Co.,*
JAS. A. HUSTON,
President.
E. B. SMITH,
Secretary."

REPORT AND ORDINANCE IN REFERENCE TO CONSTRUCTION OF BRIDGE AND ROAD AT ROMEOVILLE.

Mr. Smyth, Chairman, presented, and the Clerk read, a report from the Committee on Engineering, transmitting form of District ordinance accepting the ordinance passed and approved by the Board of Trustees of the Village of Romeoville for the construction of a bridge across the Main Channel, and reconstruction of a road heretofore established in said village, as set forth in the ordinance, the report recommending that the said District ordinance be adopted by the Board of Trustees.

Mr. Smyth, seconded by Mr. Kelly, moved that the report be adopted.

The motion prevailed unanimously.

Mr. Smyth, seconded by Mr. Kelly, then moved that the accompanying District ordinance be passed.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—nine. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, May 29, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—The Committee on Engineering transmits herewith a form of ordinance accepting the ordinance passed and approved by the Board of Trustees of the Village of Romeoville, granting to the District the right to construct a bridge across the Main Channel at said point, and to reconstruct the road heretofore established in said village, in such manner as is described in the ordinance.

The Committee respectfully recommends that the ordinance presented herewith be adopted by the Board of Trustees.

Respectfully submitted,

(Signed) THOMAS A. SMYTH,
Chairman.
J. P. MALLETTE,
THOMAS KELLY,
JOS. C. BRADEN,
Z. R. CARTER,
FRANK WENTER,
WM. BOLDENWECK,
Committee on Engineering."

(Accompanied by form of ordinance of Sanitary District and ordinance of Village of Romeoville.)

The following is

THE ORDINANCE OF THE SANITARY DISTRICT:

"*Be it ordained by the Board of Trustees of the Sanitary District of Chicago:*

SECTION 1. That an ordinance passed by the President and Board of Trustees of the Village of Romeoville, County of Will and State of Illinois, approved on the 3rd day of May, A. D. 1899, by the President and Clerk and the Board of Trustees of said village, be and the same hereby is accepted by the Board of Trustees of the Sanitary District of Chicago

as hereinafter set forth, as follows, to-wit:

Be it ordained by the President and Board of Trustees of the Village of Romeoville:

SECTION 1. That a public street or highway be and the same is hereby laid out and established as follows: Beginning at a point on the north line of Section two (2), Township thirty-six (36) North, Range ten (10) East of the Third Principal Meridian, in Will County, Illinois, fifteen (15) feet distant in an easterly direction from the point of intersection of the east line of the right-of-way of the Chicago, Santa Fe & California Railway with said north line of said Section two (2); thence running southeasterly and parallel to said easterly right-of-way line above mentioned, for a distance of one hundred and sixty-five (165) feet to a point of curve; thence in a curve to the right with a radius of forty (40) feet to a point of tangent; thence westerly in a line parallel to said north line of said Section two (2) to a point of curve; thence in a curve to the right with a radius of forty (40) feet to a point of tangent, said point of tangent being seventeen (17) feet distant from the westerly right of way line of said Chicago, Santa Fe and California Railway, measured by right angles; thence northerly in a straight line to a point being fifteen (15) feet distant in a westerly direction from the point of intersection of the westerly right of way line of the Chicago, Santa Fe and California Railway with said north line of said Section two (2), and being the point of termination of the said new road hereby laid out; said road to be thirty feet wide in the clear, except on the west side of the right of way of the Chicago, Santa Fe and California Railway, where the width diminishes from thirty (30) feet at the point of tangent to twenty-six feet (26 ft.) at the east subway of the abutment mentioned in Section two (2).

SECTION 2. The Sanitary District of Chicago shall grade and macadamize and hereafter maintain the said highway hereby laid out and established, to a level with the main track of the Chicago, Santa Fe & California Railway, from the point of its beginning to its intersection with the westerly right of way line of the Chicago, Santa Fe & California Railway, and from thence to the east abutment of the subway hereinafter mentioned the grade shall not exceed five (5) feet in one hundred (100) feet at any point thereof, and the said Sanitary District of Chicago shall construct and maintain a retaining wall on the east side of the highway west of the right of way of the Chicago, Santa Fe & California Railway, from the point of tangent to the east abutment of the subway mentioned in Section three (3), and shall construct and maintain on the west side of said highway a retaining wall from a point thirty (30) feet northwesterly of the right of way of the said Chicago, Santa Fe & California Railway to the said east abutment of the said subway mentioned in Section three (3), said walls to be two (2) feet wide on top and to be built to a height of three (5) feet and six (6) inches above the grade of the said roadway.

SECTION 3. Said Sanitary District of Chicago shall construct and hereafter maintain a bridge over the proposed subway lying between the before-described east abutment and the east pier of the swing bridge over the Main Channel of the Sanitary District of Chicago; and shall also construct and hereafter maintain a swing bridge over the Main Channel of the Sanitary District of Chicago, the said bridge extending to the public highway on the west bank of said Main Channel, the floor of said bridge to be nineteen and five-tenths (19.5) feet above Chicago datum; the approach to the bridge on the west side shall be level with the floor of said bridge until it intersects with the existing roadway of the approach from the west, said road to be constructed by the Sanitary District of Chicago, and shall be thirty feet wide through the spoil bank.

SECTION 4. Permission and authority are also hereby granted to the said Sanitary District of Chicago to do and perform all things that may be necessary or incident to the establishment or laying out of the said roadway, and to the construction of the bridge and subway and approaches thereto.

SECTION 5. Permission and authority are also hereby granted to the said Sanitary District of Chicago to remove the temporary bridge structure heretofore constructed by the said Sanitary District of Chicago in the said Village of Romeoville when said permanent bridge mentioned in Section three (3) of this ordinance, crossing said Main Channel, shall have been fully completed and opened up for travel.

SECTION 6. This ordinance shall be in full force and effect from and after its

passage and acceptance by the Sanitary District of Chicago.

Passed and approved this 3rd day of May, 1899.

(Signed) JNO. J. KEIG,
President.

Attest:

(Signed) FRITZ BOEHME,
Clerk.

SECTION 2. This ordinance shall be in force and effect from and after its passage."

REPORT IN REFERENCE TO AGREEMENT WITH A., T. & S. F. RAILWAY COMPANY FOR CONSTRUCTION OF CERTAIN TEMTORARY EMBANKMENT, TRACKS AND CROSSINGS.

Mr. Smyth, Chairman, presented, and the Clerk read, a report from the Committee on Engineering with reference to, and accompanied by, form of agreement in duplicate between the District and the A., T. & S. F. Railway Company in reference to the construction upon the right of way of said company, at or near where said right of way is intersected by the tracks of the Chicago, St. Louis and Pittsburg Railway Company, a temporary embankment, tracks and crossings, all as stated in the report, the report setting forth the necessity for such agreement and recommending that the President and Clerk of the District be authorized and directed to execute the same on behalf of the District and that the same be delivered to said railway company for execution.

Mr. Smyth, seconded by Mr. Wenter, moved that the report be adopted and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Carter, Eckhart, Kelly, Mallette, Smyth and Wenter—seven. Nays—none. Excused and not voting—Messrs. Braden and Jones—two.

The following is

THE REPORT:

"CHICAGO, May 29, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—The Committee on Engineering presents herewith drafts of agreement between the District and the Atchison, Topeka and Santa Fe Railway Company, securing to the District the right from said company to construct upon the right of way of said company, at or near where the said right of way is intersected by the track of the Chicago, St. Louis and Pittsburg Railway Company, a temporary embankment, tracks and crossings on that portion of the right of way of said Atchison Company, designated on Exhibit "A" attached to said drafts of contract, and, also, the right to lay such temporary tracks and crossings on said embankment as may be necessary.

The Committee advises that in constructing bridges across the Main Channel, near the point above mentioned, it is necessary to provide for the accommodation of the traffic of the company known as the "Pan Handle" Railroad Company, and that the land owned by the Atchison Company as its right of way, which is not now used by said company, is the most convenient for the purposes of the District upon which to construct said temporary embankment and tracks for the use of the "Pan Handle" traffic, as aforesaid.

The District agrees under the terms of said contract to construct said embankment and tracks at its own cost and expense and to remove same within one (1) year from the date of said contract.

The Committee, therefore, recommends that the President and Clerk of the District be authorized and directed to execute said agreements on behalf of the District, and that the same be delivered to said railway company for execution.

Accompanying this report are the forms of agreement hereinabove referred to.

Respectfully submitted,

(Signed) THOMAS A. SMYTH,
Chairman.

J. P. MALLETTE,
THOMAS KELLY,
B. A. ECKHART,
FRANK WENTER,
WM. BOLDENWECK,
Committee on Engineering."

(Accompanied by form of agreement and plans in duplicate.)

REPORT IN REFERENCE TO COMMUNICATION FROM MESSRS. MADDEN & SAWYER.

On behalf of the Committee on Engineering, Mr. Mallette presented a report

from that Committee with reference to, and accompanied by, a communication from Messrs. Madden & Sawyer, proposing to collect the sum of $2,800 taxes said to be due the District, and any other amounts which may be found for 25 per cent of the actual amount recovered, the report recommending that the proposition be declined and the communication placed on file with the Clerk.

In the same connection Mr. Smyth presented a minority report, dissenting from the majority, and setting forth reasons for same, and recommending that the President and Clerk of the District be authorized and directed to offer said firm of Madden & Sawyer $499 50 for furnishing information which would guarantee the collection of said amount to the District.

Mr. Smyth, seconded by Mr. Braden, moved that the minority report be substituted for the majority report.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Kelly and Smith—four. Nays — Messrs. Carter, Eckhart, Jones, Mallette, and Wenter—five.

Upon this result the President declared the motion lost.

Before voting, Mr. Braden made the following explanation which he desired to have recorded in the Proceedings: "I want to explain my vote and have it made a matter of record. I vote for the minority report for the reason that it is not 25 per cent we are paying, but only 18 per cent. I believe that 18 per cent is no more than it is worth to have this matter looked up and we would then know where it might occur again and that it would be very valuable information, and then we would be paying but 18 per cent of the amount recovered for us; for that reason I vote for it."

Mr. Mallette, seconded by Mr. Jones, then moved that the majority report be adopted and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Carter, Eckhart, Jones, Mallette and Wenter—five. Nays—Messrs. Boldenweck, Braden, Kelly and Smyth—four.

Upon this result the President declared the motion carried and the majority report adopted.

The following is

THE MAJORITY REPORT:

"CHICAGO, May 22, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—The Committee on Engineering herewith makes report that it has had under consideration a communication from Messrs. Madden & Sawyer containing a proposition to collect the sum of twenty-eight hundred dollars ($2,800.00) said to be due to the District, according to the searches made by said firm, of old city and county records, for excess payment of taxes; that said firm offers to collect said sum of money for the District upon payment to it upon the basis of 25 per cent of the actual amount recovered.

It appears evident from the communication in question that the amount due the Sanitary District, if collected, would be collected from the City of Chicago or the County of Cook; and that if not collected the taxpayers of the City of Chicago or the County of Cook would receive the benefit. This being the case the proposition simply seems to be whether it is a wise expenditure of money to pay out 25 per cent of the amount in question in order to have it transferred from the treasury of the City of Chicago or the County of Cook to the treasury of the Sanitary District of Chicago. In view of the fact that the limits of the Sanitary District of Chicago, especially from a property valuation standpoint, are so nearly co-extensive and identical with the limits of the City of Chicago or the County of Cook, it is apparent that practically the same set of taxpayers would in either case bear the burdens or share the benefits of the action proposed to be taken. This being the case the question is whether an aggregation of taxpayers representing the Sanitary District of Chicago should be required to pay seven hundred dollars ($700.00) for collecting from themselves, as taxpayers of the City of Chicago or the County of Cook, the amount of twenty-eight hundred dollars ($2,800.00) to be placed again to the credit of themselves, as taxpayers of the City of Chicago.

Your Committee fail to recognize the financial wisdom of such a proposition and therefore recommend that the offer contained in the enclosed communication be declined and the communication

placed on file with the Clerk of the District.

Respectfully submitted,

(Signed) J. P. MALLETTE,
B. A. ECKHART,
Z. R. CARTER,
FRANK WENTER,
ALEX. J. JONES,
Committee on Engineering."

(One enclosure.)

The following is

THE MINORITY REPORT:

"CHICAGO, May 22, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—The undersigned, minority members of the Committee on Engineering, desire to report that they dissent from the report of the majority for the following reasons:

The Committee advises that said firm of Madden & Sawyer has in its possession the best and only means of ascertaining the sum of money said to be due the District; that their business is that of searching old city and county records for excess payment of taxes and that, in one of their searches, they allege that they have found the item of twenty-eight hundred dollars ($2,800.00) said to be due the District. In as much as it appears to the Committee that there is no other source through which the District may collect the same, and in order to discover means of obtaining information affecting like matters of the District in future, the Committee is of the opinion that said firm should be employed to collect said takes and, therefore, recommends as follows:

That the President and Clerk of the District be authorized and directed to offer said firm of Messrs. Madden & Sawyer the sum of four hundred and ninety-nine dollars and fifty cents ($499.50) for furnishing information which would guarantee the collection of the said amount to the District.

Respectfully submitted,

(Signed) WILLIAM BOLDENWECK,
THOMAS A. SMYTH,
THOMAS KELLY,
JOS. C. BRADEN,
Members of the Engineering Committee."

PRESENTATION OF BIDS FOR SUPPLYING AND ERECTING SUPERSTRUCTURE FOR CHICAGO, ROCK ISLAND AND PACIFIC RAILWAY BRIDGE ACROSS DESPLAINES RIVER ON SECTION 18.

The President then announced that in conformity with the advertisement inviting proposals for supplying and erecting the superstructure of the Chicago, Rock Island and Pacific Railway Bridge across Desplaines River on Section 18, duly published, giving sixty days notice as required by the Sanitary District Act, the Board would now proceed to open bids received in response to said advertisement.

The Clerk then proceeded to open the bids as shown hereafter.

At the conclusion of the reading of the bids Mr. Jones, seconded by Mr. Braden, moved that the President and Clerk be authorized and directed to execute a contract for said work with the Chicago Bridge and Iron Company, it being the lowest bidder, at the prices set forth in its bid, on the approval by the Committee on Finance of a proper bond to be furnished by said company.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette and Smyth—eight Nays—none.

Upon this result the President declared the motion carried.

Mr. Jones, seconded by Mr. Kelly, then moved that upon the execution of said bond and contract the Clerk be directed to return the checks deposited with said bids.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette and Smyth—eight. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE SCHEDULE OF BIDS FOR SUPPLYING AND ERECTING SUPERSTRUCTURE FOR CHICAGO, ROCK ISLAND AND PACIFIC RAILWAY BRIDGE ACROSS DES-PLAINES RIVER ON SECTION 18.

Opened May 31, 1899.

No. of Bid as Rec'd.	NAME AND ADDRESS OF BIDDER.	Amount Deposited with Bid.
1	Chicago Bridge and Iron Company, Chicago, Ill	$1,200 00
2	Massillon Bridge Company, Massillon, Ohio	1,200 00
3	The J. G. Wagner Company, Milwaukee, Wis	1,200 00
4	Wisconsin Bridge and Iron Company, Milwaukee, Wis	1,200 00
5	The King Bridge Company, Cleveland, Ohio	1,200 00
6	The LaFayette Bridge Company, LaFayette, Ind	1,200 00

The following are

THE BIDS IN DETAIL FOR SUPPLYING AND ERECTING SUPERSTRUCTURE FOR THE CHICAGO, ROCK ISLAND AND PACIFIC RAILWAY BRIDGE ACROSS DESPLAINES RIVER ON SECTION 18.

In Order of Magnitude—Lowest Bid First—Opened May 31, 1899.

No. of Bid as Received.	No. of Bid in Order of Magnitude.	NAME AND ADDRESS OF BIDDER.	Superstructure.	Extra Medium or Soft Steel—Cents Per Lb.	Extra Iron Castings—Cents Per Lb.
1	1	Chicago Bridge and Iron Company, Chicago, Ill	$14,720 00	04	03
3	2	The J. G. Wagner Company, Milwaukee, Wis	14,800 00	04	03
5	3	The King Bridge Company, Cleveland, O	14,970 00	04½	04
4	4	Wisconsin Bridge and Iron Company, Milwaukee, Wis	15,280 00	04	04
2	5	Massillon Bridge Company, Massillon, O	16,000 00	04½	03
6	6	The La Fayette Bridge Company, La Fayette, Ind	16,400 00	05	03

ADJOURNMENT.

On motion of Mr. Carter, seconded by Mr. Eckhart, the Board then adjouned.

Joseph F. Haas

Clerk.

PROCEEDINGS

—OF THE—

BOARD OF TRUSTEES

—OF THE—

SANITARY DISTRICT OF CHICAGO.

JUNE 3, 1899.

OFFICIAL RECORD

Published by authority of the Board of Trustees of the Sanitary District of Chicago.

A special meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Saturday, June 3, 1899, at 9:30 o'clock A. M., pursuant to call.

On roll-call Messrs. Boldenweck, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—eight members, were present.

President Boldenweck then called the Board to order.

CALL FOR MEETING.

The Clerk then read the call for the meeting, which is as follows:

"CHICAGO, June 2, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—At the request of Trustees Carter, Jones and Wenter, and in accordance with Rule IV of the Rules and Regulations, I hereby call a special meeting of the Board of Trustees of the Sanitary District of Chicago, to be held at the rooms of the Board, Security Building, on Saturday, June 3, 1899, at 9:30 o'clock A. M. sharp, for the purpose of considering a communication from the special commissioners appointed by the Governor for the inspection of work of the Sanitary District, and for such other business as may properly come before the meeting.

Respectfully

(Signed) JOSEPH F. HAAS,
Clerk.

APPROPRIATION FOR SPECIAL COMMISSIONERS.

Mr. Wenter, Chairman, presented a report from the Committee on Federal Relations in reference to and accompanied by a communication from the special commissioners appointed by the Gover-

nor for the inspection of the work of the Sanitary District, the report being also accompanied by an ordinance appropriating $25,000 for the use of the commission, as set forth in the report and ordinance.

The Clerk then read the communication and report, which by unanimous consent were ordered printed and placed on file.

The Clerk then read the ordinance.

Mr. Wenter, seconded by Mr. Jones, moved that the ordinance be adopted.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—eight. Nays—none.

Upon this result the President declared the motion carried.

Mr. Jones, seconded by Mr. Wenter, then moved that the Clerk be instructed to publish the ordinance just adopted in accordance with the provisions of the statute.

On roll-call the vote stood: Messrs. Boldenweck, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—eight. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE COMMUNICATION:

"CHICAGO, ILL., June 2, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—The Special Commissioners appointed by the Governor to make an inspection of the work in the Sanitary District find, upon investigation of the law,

First: That the last General Assembly failed to make any appropriation with which to meet the salaries of the Commissioners, the Engineer and all other expenses, and, as we are unable to proceed with the work as provided in the Act, unless funds are in our hands, we would ask of your Honorable Board to appropriate at this time the sum of $25,000.00 to be placed to our credit in some Chicago bank upon which we can draw for the payment of salaries and other bills incurred by our Commission.

Second: The law further provides that the salary of the Chief Engineer shall be $10 per diem, which, upon a thorough investigation by the Commission, and from reliable information received considering the importance and magnitude of the work, we find said amount too small and entirely inadequate to procure such an engineer as our Commission deems the necessity of the work demands.

We would, therefore, further ask your Honorable Board to take action in this matter and agree to pay the additional amount that may be required by our Commission for the payment of the salary of such Chief Engineer.

Trusting you will see the importance of these two matters, the necessity for immediate action in order that our Commission may begin the work of inspection at once, and that they may receive a favorable consideration at your hands, we remain

Yours respectfully,

(Signed) ISAAC TAYLOR,
President.

(Signed) AL. F. SCHOCH,
Secretary."

The following is

THE REPORT:

"CHICAGO, June 3, 1899.

To the Honora le, the Board of Trustees of the Sanitary District of Chicago

GENTLEMEN—Your Committee on Federal Relations beg leave to state that they have considered the communication herewith submitted of the Commissioners appointed by the Governor of the State of Illinois to inspect the channel of the Sanitary District of Chicago in accordance with section 27 of the Act under which this District was organized.

Your Committee, after several conferences with said Commission on the matters mentioned in this communication, beg leave to report the following ordinance and recommend that the same be adopted by your Honorable Body, and that a certified copy of said ordinance be transmitted to said Commission.

Respectfully submitted,

(Signed) FRANK WENTER,
Chairman.

B. A. ECKHART,
Z. R. CARTER,
ALEX. J. JONES,
THOMAS A. SMYTH,
Committee on Federal Relations."

The following is

THE ORDINANCE:

"WHEREAS, The Act of the General Assembly of Illinois, under which was organized the Sanitary District of Chicago, provides that the compensation and expenses of the state commission and engineer, in the inspection of the Drainage Channel in accordance with Section 27 of said act, shall be paid from the State treasury and the State reimbursed therefor by the Sanitary District of Chicago; and,

WHEREAS, The Forty-first General Assembly of the State of Illinois failed to make any appropriation for the payment of the Commissioners who have just been appointed by the Governor, or for an engineer and other services and expenses requisite for a proper inspection of the Drainage Channel; and,

WHEREAS, The necessity for immediate inspection and report by said Commissioners is of paramount importance to the Sanitary District of Chicago, the Desplaines and Illinois Valley and the inhabitants thereof; and,

WHEREAS, The salary of $10 per day fixed by the statute is inadequate for the services of a civil engineer of such competence and experience as to expeditiously perform the work of surveying and inspection, within the time necessary to permit the opening of the Channel to its usefulness on the date at present contemplated; and,

WHEREAS, It is the sense of the Board of Trustees of the Sanitary District of Chicago that the State Commission aforesaid will find it necessary and will be justified in paying to the engineer selected by them and provided for in Section 27 of said Act, a salary in excess of that contemplated by law, therefore, be it

Resolved, That, in order to meet the emergency and conform with the necessities set forth in the foregoing preamble, the sum of twenty-five thousand dollars be and the same is hereby appropriated from the treasury of the Sanitary District of Chicago for the use of the State Commission appointed by the Governor of Illinois in accordance with Section 27 of the "Act to create sanitary districts and remove obstructions in the Desplaines and Illinois Rivers", and that said amount be placed to the credit of said State Commission in the Chicago National Bank subject to the order and warrants of said Commissioners, on the approval of the Governor of the State of Illinois, to meet the salaries and other expenses to be incurred by said Commission in making the inspection of said Drainage Channel in accordance with said Act, and including such additional sum said Commission may find it necessary to pay for the services of a competent engineer over and above the per diem of ten dollars provided by the statute."

ADJOURNMENT.

On motion of Mr. Wenter, seconded by Mr. Mallette, the Board then adjourned.

Joseph F. Haas

Clerk.

PROCEEDINGS

—OF THE—

BOARD OF TRUSTEES

—OF THE—

SANITARY DISTRICT OF CHICAGO.

JUNE 7, 1899.

OFFICIAL RECORD.

Published by authority of the Board of Trustees of the Sanitary District of Chicago.

REGULAR MEETING.

The four hundred and forty-first regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Wednesday, June 7, 1899, at 2 o'clock P. M.

On roll-call Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter — nine members, were present.

President Boldenweck then called the Board to order.

MINUTES.

The minutes of the regular meeting held May 31, 1899, were approved as printed on motion of Mr. Kelly, seconded by Mr. Braden.

VOUCHERS.

The Clerk presented the following vouchers :

*ENGINEERING DEPARTMENT.

Isham Randolph (labor, pumping plant)	$ 58 50	
Banbury Printing Company (printing specifications)	45 00	
Banbury Printing Company (printing specifications)	190 00	
Ralph Modjeski (services)	299 75	
Canal Commissioners (inspection, Lock No. 5)	300 00	
		$ 893 25

CLERICAL DEPARTMENT.

White Rock Mineral Spring Company (water)	$ 3 75	
A. P. Little (carbon paper)	4 00	
Henry Gebhardt (wardrobe)	11 33	
The Typewriter Inspection Company (repairing machine)	12 00	
		$ 31 08

*LAW DEPARTMENT.

M. V. Gannon (legal services)	$ 110 00	
S. S. Fallas (legal services)	250 00	
		$ 360 00

GENERAL ACCOUNT.

S. L. Hanks (putting up awnings, etc.)	$ 6 00	
Henry Gebhardt (hardware and fitting)	22 12	
Chicago Journal (advertising)	12 30	
The Inter Ocean (advertising)	15 45	
Tribune Company (advertising)	8 10	
The Chicago Times-Herald advertising)	5 20	
The Chicago Chronicle Company (advertising)	20 60	
The Engineering News Publishing Company advertis.ng)	38 40	
The Engineering Record (advertising)	37 00	
American Contractor Publishing Company (advertising)	24 15	
The Construction News Company (advertising)	27 15	
*Phil. J Walsh (cleaning carpets, etc.)	51 00	
*Security Deposit Company (rent for June, 1899)	458 33	
*Illinois Engraving Company (re-printing 1890-91 proceedings)	495 50	
		$ 1,221 30

POLICE DEPARTMENT.

W. L. Felkner (expense)	$ 2 15	
Mrs. A. Hartwig (laundry)	4 00	
Bridget Lambert (laundry)	12 00	
T. H. Nolan (expense)	26 00	
E. J. Coen (expense)	38 75	
		$ 82 90

*CONSTRUCTION ACCOUNT.

Lydon & Drews Company (dredging Chicago River)	9,324 00	
Lydon & Drews Company (By-Pass to June 1, 1899)	17,176 04	
Hayes Bros. (Section 16, June 1, 1899)	2,218 12	
Heldmaier & Neu (Section 12, Romeo Bridge)	1,618 75	
Heldmaier & Neu (Section 17, June 1, 1899)	19,884 37	
Gahan & Byrne (Section 18, June 1, 1899)	13,834 62	
Gahan & Byrne (Section H, June 1, 1899)	2,976 56	
Hayes Bros. et al. (Section N, June 1, 1899)	4,223 41	
Hayes Bros. et al. (Section N, park filling)	467 25	
The Scherzer Rolling Lift Bridge Co. (Section O—P. H. Bridge)	1,434 48	
The A., T. & S. F. Ry. Co. (Section N, bridge)	30 47	
C. T. T. R. .. Co. (Section E, bridge)	100 74	
The Marsh & Bingham Company (Section N—P. H. Bridge)	106 14	
Geo. M. Huss (Section N—C., M. & N. Viaduct)	100 00	
Winston & Co. (Section N—C., M. & N. Bridge)	199 90	
The Garden City Sand Company (sand)	33 08	
		$73,727 93
Grand total		$76,316 46

* To be paid by warrants, with interest coupons attached, drawn against the Tax Levy for 1899.

Mr. Carter, seconded by Mr. Wenter, moved that the vouchers as read and shown above be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Boldenweck Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—nine. Nays—none.

Upon this result the President declared the motion carried.

WEEKLY REPORT ON EMPLOYES.

The Clerk presented a report, in accordance with the rules, showing the number of persons in the employ of the District for the week ending June 3, 1899, which was read and by unanimous consent was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, June 7, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the week ending June 3, 1899, as the same have been reported to me:

Engineering department	81
Maintenance account	9
Clerical department	5
Law department	8
Treasury department	1
Police department	29
General	3
Total employes	136

Respectfully submitted,

(Signed) JOSEPH F. HAAS,
Clerk."

MONTHLY REPORT FROM TREASURY DEPARTMENT.

The Clerk presented a report from the Treasury Department for the month of May, 1899, which was read, and, by unanimous consent, was ordered printed and placed on file.

The following is THE REPORT:

Receipts.

Balance on hand at date of last report		$ 674,443 94
From J. F. Haas, Clerk, Construction Account	$ 400 00	
From J. F. Haas, Clerk. Tax Levy Warrant, 1899	1,176 85	
From J. F. Haas, Clerk, Tax Levy Warrant. 1899	578 16	
From J. F. Haas, Clerk, Tax Levy Warrant, 1899	400 39	
From County Treasurer, Sanitary District Tax Account	300,000 00	
From Chicago National Bank, Interest Account	319 33	
Total cash received for month		$ 302,874 73
		$ 977,318 67

Disbursements.

Clerical Department	$ 26 84	
Treasury Department	15 25	
Engineering Department	379 20	
Law Department	186 55	
General Account	63 43	
Maintenance Account	75 61	
Police Department	16 90	
Bond Interest and Premium Account	35,000 00	
Tax Warrant Paid, Levy 1896	119 00	
Tax Warrants Paid, Levy 1898	698,556 74	
Interest Paid on Tax Warrants	24,022 68	
Total cash disbursed		$ 758,462 20
Balance this date in banks as per schedule endorsed hereon		218,856 47
		$ 977.318 67

Schedule.

Chicago National Bank	$ 192,917 69
National Bank of Illinois	25,938 78
Total	$ 218,856 47

CHICAGO, June 6, 1899.

(Signed) F. M. BLOUNT, *Treasurer.*
By S. P. BLOUNT, *Asst. Treasurer.*

PARTIAL PAYMENT OF INDEMNITY TO THE BELT RAILWAY COMPANY OF CHICAGO FOR REPAIRS AND MAINTENANCE OF BRIDGE.

The Clerk presented a report from the Chief Engineer transmitting joint certificate of the Chief Engineer of the Sanitary District and the Chief Engineer of the Belt Railway Company of Chicago and the Chicago and Western Indiana Railroad Company under the provisions of the agreement with those companies, of January 4, 1899, as to the amount of indemnity to be paid for the ordinary maintenance and repairs of bridge structure, etc., as provided in Section 8, Article 1 of said agreement, the sum due now being fixed at $93,046.50, being 90 per cent of the approximate valuation of the total amount to be paid.

Mr. Carter, seconded by Mr. Jones, moved that the report be received and that the President and Clerk be authorized and directed to pay to Belt Railway Company of Chicago the sum of $93,046.50 on account of said indemnity when said company shall have executed a proper receipt therefor.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—nine. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, June 7, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I transmit herewith joint certificate covering capitalization of the bridge of the Belt Railway of Chicago on the basis of approximate weights and quantities, accompanying the same with voucher for ninety (90) per cent of the ascertained capitalization.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,

Chief Engineer."

The following is

THE JOINT CERTIFICATE OF THE CHIEF ENGINEERS:

"Acting under the provisions of Section 8 of Article 1 of the contract entered into January 4th, 1899, by and between the Sanitary District of Chicago and the Belt Railway of Chicago and the Chicago and Western Indiana Railroad Company, we, the undersigned Chief Engineers respectively of the said Sanitary District and of the Belt Railway of Chicago and the Chicago and Western Indiana Railroad Company, hereby certify that, basing our computations on the preliminary estimates of weights and quantities and fixing values thereon upon the basis of the prices used in the award of the contract for constructing the bridge structure covered by said contract of January 4th, 1899, we have determined the sum to be paid to the said railway companies by the said District for the ordinary maintenance and repairs of the said bridge structure as set forth in Section 8, Article 1, before mentioned (items a, b, c and d), to be one hundred and three thousand three hundred and eighty-five ($103,385) dollars, upon the basis of the use of said bridge as a fixed structure, ninety per cent of which or ninety-three thousand and forty-six and fifty one-hundredths ($93,046.50) dollars is now due and payable. This certificate is subject to revision and correction as soon as the actual weights of iron and steel and quantities of lumber used in construction are determined, after which a final certificate in accordance with the aforesaid contract of January, 1899, shall be issued.

(Signed) ISHAM RANDOLPH,

Chief Engineer, Sanitary District of Chicago.

E. H. LEE,

Chief Engineer, Belt Railway of Chicago and Chicago and Western Indiana Railroad Co.

CHICAGO, June 5, 1899.

The following is

THE STATEMENT:

The approximate capitalization on the four-track bridge is as follows:

2,676,000 lbs. structural iron at .03c.....$	802 80
87,000 ft. B. M., cross ties and guard rail at $5.....	435 00
1,368 lineal feet of track at 20c.....	273 60
Contract price of Superstructure, $131,200.00.	
2% of $131,200.....	2,624 00
	$ 4,135 40

$4,135.40 x 25 = $103,385.00, 90 per cent can be paid now, or $93,046.50.

APPROVAL OF BOND ON CONTRACT FOR SUPPLYING AND ERECTING SUPERSTRUCTURE FOR C., R. I. & P. RAILWAY BRIDGE ACROSS DESPLAINES RIVER ON SECTION 18.

Mr. Carter, Chairman, presented, and the Clerk read, a report from the Committee on Finance in reference to the acceptance and approval of the bond of the Chicago Bridge and Iron Company on the contract for the superstructure of the Chicago, Rock Island and Pacific Railway Bridge across the Desplaines River on Section 18 in accordance with the action of the Board at the meeting held May 31, 1899 (page 5840 of the proceedings), the report setting forth that the Committee has examined said bond and recommending that the same be approved by the Board of Trustees.

Mr. Carter, seconded by Mr. Kelly, moved that the report be adopted, and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—nine. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, June 7, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—The Committee on Finance desires to report that the contracts have been executed by the Chicago Bridge and Iron Company for supplying and erecting the superstructure of the Chicago, Rock Island and Pacific Railway bridge, across the Desplaines River, on Section "18," and that bond accompanying said contract has also been executed in the penal sum of five thousand ($5,000) dollars.

The Committee to whom was referred, at the meeting of the Board held May 31, 1899 (page 5840 of the proceedings), the bond as above mentioned, for approval and acceptance, reports that it has examined said bond and finds that it is in proper form and that the surety thereon is sufficient.

The Committee, therefore, recommends that the same be approved by the Board of Trustees.

Respectfully submitted,

(Signed) Z. R. CARTER,
Chairman.
B. A. ECKHART,
FRANK WENTER,
THOMAS KELLY,
ALEX. J. JONES,
Committee on Finance."

The following is

THE CONTRACT:

"SANITARY DISTRICT OF CHICAGO.

Contract and specifications for superstructure for the Chicago and Rock Island Railway Company's Bridge across the Desplaines River on contract Section 18 at Joliet.

THIS AGREEMENT, Made and entered into this seventh day of June, A. D. 1899, by and between the Sanitary District of Chicago, of the first part, and Chicago Bridge and Iron Company, a corporation organized and existing under the laws of the State of Illinois, of the City of Chicago, in the State of Illinois, of the second part.

A—

WITNESSETH: That the said party of the second part has covenanted, contracted and agreed, and by these presents does covenant, contract and agree with the said party of the first part, for the consideration of the payments to be made as provided for herein, to the said party of the second part by the said party of the first part, and under a penalty expressed in a bond bearing even date herewith, at his own proper cost and expense to do all the work and to furnish all material, tools, labor, and all appliances and appurtenances called for by this agreement, in the manner and under the conditions hereinafter stipulated, that are necessary to the complete doing of the work known and distinguished by the specifications herein contained, and the plans accompanying them, as the Chicago and Rock Island Railway Company's Bridge across the Desplaines River at Joliet.

B—

It is further covenanted, contracted and agreed, that the work shall be executed under the direction and supervision of the Chief En-

gineer or other designated representative of the Sanitary District of Chicago, and his properly authorized agents, and by whose measurements and calculations the quantities and amounts of the several kinds of work performed under this contract shall be determined, and on whose inspection all work shall be accepted or condemned. The said Chief Engineer, or other designated representative, shall have full power to reject or condemn all materials furnished or work performed under this contract which do not fully conform to its spirit and to the terms and conditions herein expressed; and the Chief Engineer, or other designated representative of the Sanitary District in charge of said work shall decide every question which may arise between the parties hereto relative to the execution thereof and his decision shall be final and binding upon both parties.

C—

Wherever the words "Sanitary District" are used in this contract they shall be understood to mean the Sanitary District of Chicago as represented by the Board of Trustees, or their duly authorized and accredited agents.

Wherever the word "Engineer" is used herein it shall be understood to mean either the Chief Engineer of the Sanitary District of Chicago, or the duly accredited expert representative of the Sanitary District, limited by the particular duties intrusted to them.

Wherever the word "Contractor" is used herein it shall be understood to mean the person or persons or co-partnership or corporation entering into the contract as party of the second part.

The following ordinance, passed by the Board of Trustees of the Sanitary District of Chicago, June 23, 1897, is hereby made a part of this contract and the party of the second part agrees to comply with its provisions and in case of violation thereof to be subject to the penalties therein authorized to be imposed:

"*Be it ordained by the Board of Trustees of the Sanitary District of Chicago:*

"SECTION 1. That in the preparation of all future specifications for contracts for the construction of the Main Channel and auxiliary works, the Engineering Department shall provide that such contracts shall be executed in conformance with the law constituting eight (8) hours a legal day's work in all contracts under the Sanitary District of Chicago, and that in the employment of labor contractors shall be required and specifically agree to give preference to union labor.

"SEC. 2. That all contracts hereafter executed for the works of the Sanitary District of Chicago shall contain provisions constituting eight (8) hours a legal day's work, and forbidding the employment of any employe or employes for a longer period than eight (8) hours in any twenty-four (24) hours, and that said contract shall vest specific authority in the Police Department of the Sanitary District of Chicago to exercise supervision for the enforcement of this provision, and shall provide that the Board of Trustees of the Sanitary District of Chicago shall be empowered in all cases of violation of said eight (8) hour law, to deduct and retain from any money accruing to said contractors a sum as liquidated damages at the rate of five dollars ($5.00) per hour for each employe who shall be required to work in excess of eight (8) hours per day by any contractor on said Canal."

SPECIFICATIONS—PLANS.

1. All plans and drawings prepared by the Sanitary District of Chicago for this work, with all notes, dimensions, figures and corrections thereon, shall be considered a part of these specifications; and in the event of any discrepancy between plans and specifications, the judgment of the Engineer shall be decisive thereon.

2. All shop plans required shall be made by and at the expense of the Contractor, and submitted to the Engineer for approval, before beginning work, and at least six (6) sets of prints of such approved plans shall be furnished the Sanitary District free of costs. No alterations of approved plans will be permitted to be made by the Contractor without the written consent of the Engineer.

3. The approval of said plans by the Engineer will not relieve the Contractor from the responsibility of errors thereon.

4. Plans furnished by the Sanitary District shall be carefully checked by the Contractor before beginning work. Should errors be discovered, the Engineer's attention should be called to the same and corrections made, after which the Contractor

will be responsible for all errors which may occur or may have occurred.

5. All such working drawings submitted shall have a uniform size of twenty-six (26) inches by forty (40) inches inside border lines with border margin of one-half (½) inch. When submitted for approval, a complete set of such drawings shall be presented.

QUALITY OF MATERIAL—WROUGHT IRON.

Rivet Iron.

6. All iron used for rivets shall have an ultimate tensile strength of not less than 48,000 pounds per square inch, an elastic limit of at least 26,000 pounds per square inch, and an elongation of at least twenty (20) per cent. in eight (8) inches, and be so ductile that when bent cold through 180 degrees, and hammered down flat on itself, it shall show no sign of fracture on convex side of curve.

STEEL.

Character.

7. All steel shall be uniform in quality and made by the Open Hearth process.

8. Tests shall be made upon pieces cut from the finished material, and shall not be less than one-half (½) square inch in sectional area. Two (2) pieces, one (1) for tensile test, and one (1) for bending test shall be furnished for each blow or cast, and so selected that each heat or furnace full of billets, blooms or slabs shall be represented by at least one (1) test to prove the condition of the metal after reheating, rolling, etc.

Medium Steel Tests.

9. When tested in specimens as above, medium steel shall have an ultimate tensile strength of from sixty-two thousand (62,000) to seventy thousand (70,000) pounds per square inch, an elastic limit of not less than one-half the ultimate per square inch, shall elongate not less than twenty-two (22) per cent. in eight (8) inches, and show a reduction of area at point of fracture of not less than forty (40) per cent.

10. The test piece must also bend cold one hundred and eighty (180) degrees around a curve whose diameter is equal to the thickness of the piece without crack or flaw on convex side of bend.

11. A hole punched for a three-quarter (¾) inch rivet, one and one-half (1½) inches from the edge of plate, shall be capable of being enlarged by drifting to one and one-eighth (1⅛) inches in diameter without sign of fracture.

Soft Steel Tests.

12. When tested in specimens as selected and described above, soft steel shall have an ultimate tensile strength of from 54,000 to 62,000 pounds per square inch, an elastic limit of not less than one-half the ultimate per square inch, and shall elongate not less than twenty-six (26) per cent. in eight (8) inches, and show a reduction in area at point of fracture of not less than fifty (50) per cent., except in web plates over thirty-six (36) inches wide, when the elongation will be reduced to twenty (20) per cent. and the reduction of area to forty (40) per cent. It must also bend cold through 180 degrees and close down upon itself without showing sign of fracture on convex side of bend. A hole punched for three-quarter (¾) inch rivet, and one and one-half (1½) inches from the edge of plate, shall be capable of being enlarged by drifting to one and one-half (1½) inches in diameter without sign of fracture.

Rivet Steel.

13. Rivet steel shall have an ultimate strength of forty-eight thousand (48,000) to fifty-six (56,000) pounds, and an elastic limit not less than fifty (50) per cent. of the ultimate; an elongation of not less than twenty-eight (28) per cent., and must bend one hundred and eighty (180) degrees flat on itself without sign of fracture on the convex side of the bend.

Rivets.

14. All hand driven rivets, whether shop or field, shall be of the best quality of rivet steel as specified.

15. Specimens taken from all grades of steel, after being heated to a light cherry red (as seen in the dark) and quenched in water of eighty-two (82) degrees Fahrenheit, must conform to the bending requirements above.

Chemical Analysis.

16. The chemical analysis for carbon and phosphorus of each blow or cast must be furnished to the Engineer, or his inspectors, before any of the material rolled from said blow or cast is shipped from the mill. Phosphorus must not exceed six one-hundredths (.06) per cent. for acid steel, or four one-hundredths (.04) per cent. for basic steel.

Chippings and Alterations.

17. All blooms, billets or slabs shall be

examined for surface defects, flaws or blow holes before being rolled into the finished sections, and such chippings and alterations made as will secure perfect solidity in the finished sections.

Marking.

18. The original blow or cast number must be painted or stamped on all blooms, billets or slabs, in order to identify the material throughout the various processes of manufacture; and the original blow or cast number, together with the furnace heat number, must be stamped on each piece of finished material from said blow or heat.

Finish.

19. All finished, rolled material must present a smooth, clean surface, free from buckles, flaws, cracks, ragged edges or any other defects, and must be straight throughout and true to section.

Brittle Steel.

20. No steel which proves brittle shall be used under any circumstances; if it develops this character at any stage of its manufacture, it shall be at once condemned and other material used. The object of the more particular clauses, hereto relating, being to guard against the possibility of the use of this class of metal.

CAST IRON.

21. Cast iron must be the best quality of soft gray iron. The castings must be free from flaws, ragged edges, or any other defects impairing its efficiency or appearance; and bars of a section one (1) inch square, placed twelve (12) inches between supports, must be strong enough to bear a weight of twenty-four hundred (2400) pounds placed half way between supports.

Ties and Guard Timber.

22. All timber to be first quality, long leaf yellow heart pine, entirely free from sap and to be cut from live trees, grown south of the south line of Tennessee. To be straight, square edged, free from shakes, loose or rotten knots or other material defects. To be planed on all sides to exact dimensions given on plans.

23. The guard timber shall have a length of not less than twenty-four (24) feet. The ties to be cut with square ends and the length not to vary more than one-quarter (¼) inch from length given on plans.

WORKMANSHIP.

Character of Work.

24. All work must be done in a strictly first-class manner and shall at all times be subject to thorough and careful inspection.

25. Finished pieces shall be true to size, section and line, straight and out of wind at all points; and all machine, rivet and smith work done upon them shall be of the best character.

Straightening.

26. All material must be carefully straightened before being laid off.

Marking.

27. All parts which are given a descriptive letter or number in the drawings shall have that letter or number stenciled on them before shipment. Eye bars shall have it stamped on the edge at the extreme end of the bar.

Web Plates.

28. The web plates for the girders must be so arranged as not to project beyond the faces of the bottom flange angles, nor be more than one-sixteenth (1-16) of an inch less on lower edge.

Riveting.

29. All rivets with crooked heads, or heads not formed centrally on the shank, or rivets which are loose, either in the hole or under the shoulder, shall be cut out and replaced with good rivets.

30. The diameter of the hole shall not exceed the diameter of the rivet more than one-sixteenth (1-16) of an inch.

Reaming and Fitting.

31. All riveted work in steel shall be reamed.

32. All splice plates in which the holes are mismatched, either in the plates themselves or with the adjoining chord or flange, shall be matched and the holes reamed to fit before leaving the shop.

33. No inaccurate or otherwise defective work will be accepted under any circumstances in connection joints or riveted work.

34. Wherever practicable, rivets must be machine driven.

35. In all riveted work wherever reaming is specified the punch holes shall be one-eighth (⅛) inch less on the die side than size required, and shall then be reamed to fit.

Cambre.

36. The bridges shall be given a cambre not less than the deflection under extreme loads.

INSPECTION AND TESTS.

Specimens.

38. The Contractor shall furnish complete facilities for inspection of material and workmanship. Small specimens for testing of material and also the necessary labor shall be furnished by Contractor without charge, when called for by the Engineer or Inspector. Inspectors will be retained by the Sanitary District with full power to reject all work or material which does not in every way conform to the letter and spirit of the specifications.

Mill Testing.

39. All material shall be inspected at the mills where it is rolled.

40. Test specimens shall fairly represent material to be tested, and shall not in any way be worked on to alter quality before testing. They shall be cut whenever practicable so as to retain two opposite sides as they come from the rolls.

41. Regular bending specimens shall be taken, one for every tensile test. They shall have the rough edges planed off, and shall be duplicates of and cut from the same originals, as tensile tests for the same material.

42. Tests shall be sufficient in number to fairly represent, in the judgment of the Engineer, the material to be inspected; there shall, however, be no more than two (2) tests, *i. e.*, two (2) tensile and two (2) bending specimens, for every twenty pieces in the order.

43. The passing of any material at the mills shall not prevent its subsequent rejection for cause. If found defective after delivery, such material shall be replaced at the expense of the Contractor.

PAINTING AND SHIPPING.

Painting.

44. All the iron work before leaving the shops shall receive one good coat of boiled oil well rubbed in and surplus oil taken off.

45. In the riveted work the surfaces coming in contact shall be painted with two (2) coats of red lead paint. Bottom of bed plates, bearing plates, and any parts which are not accessible for painting after erection, shall have two (2) coats of paint of the same brand.

46. After the structures are erected, the iron work shall be thoroughly and evenly painted with two (2) additional coats of red lead paint; the first coat to be pure red lead (ground dry) and raw linseed oil, in proportions thirty-three (33) pounds of red lead to one (1) gallon of oil; the second coat shall be in proportions of thirty-three (33) pounds of red lead to one (1) gallon of oil and one (1) pound of best lamp black to each five (5) gallons of oil used.

47. All finished surfaces shall be coated with white lead and tallow before being shipped from the shop.

48. No painting shall be done in wet or freezing weather.

Shipping.

49. All parts shall be carefully loaded, so as to avoid injury in transportation, and shall be at Contractor's risk until erected and ready for the rails.

50. All screw ends shall be wrapped with twine before shipment.

51. All pins and small parts must be securely boxed, and the boxes plainly marked. The weights of large pieces must be marked on them. The invoices shall state the contents of each box and the weight and description of each piece that is not boxed, and two (2) copies of each invoice shall be furnished the Sanitary District of Chicago.

ERECTION.

52. The Contractor shall furnish all staging and false work, shall erect and adjust all the metal work, shall furnish and put in place all floor timbers, timber guards, and masonry bolts and securing them in place.

The Contractor to Keep One Track Open.

53. The Contractor shall so conduct all his operations as not to impede the operations of the road, on one track, or interfere with the work of other contractors, or close any thoroughfare by land or water, except by written consent of the Engineer.

54. The Contractor shall assume all risks of accidents to men or material prior to the acceptance of the finished structure. The Contractor must also remove all false work,

piling and other obstructions, or unsightly material produced by his operations.

FINAL ACCEPTANCE.

55. Any material or workmanship which does not satisfy the requirements of these specifications may be rejected by the Engineer at any time before the final acceptance of the work, and the Contractor shall make good all deficiencies at his own cost. The fact that the authorized Inspectors have accepted said material or workmanship shall not make the Sanitary District liable for extra cost above that specified in the contract, for replacing same with material or workmanship accepted by the Engineer on final acceptance.

GENERAL CONDITIONS.

Workmen.

56. The Contractor shall employ competent foremen and laborers and shall discharge, at the request of the Engineer, any incompetent or unfaithful men in his employ. None but men expert in their respective branches of work will be employed where special skill is required, and in the employment of men preference shall be given to Union laborers.

57. It is especially understood and agreed that eight (8) hours shall constitute a day's work, and that no workman shall be employed or required to work more than eight (8) hours out of any twenty-four (24) hours, and no work in excess of that time shall be allowed.

58. In the event of any violation of t e above eight (8) hour provision, it is agreed hereby that the said District shall, and that it is duly authorized to retain from any money due or to become due at any time from it to the second party, as liquidated damages, the sum of five (5) dollars per hour for each hour that any employe shall be required to work in excess of eight (8) hours per day, pursuant to the terms and conditions of the ordinance adopted June 23, 1897, attached hereto.

Patents.

59. It is further agreed that the second party shall indemnify, keep and save harmless said first party from all liabilities, judgments, costs, damages and expenses which may in any wise come against said first party, or which may result on account of any infringement of any patent by means of the use of any materials, machinery, device, or apparatus used in the performance of this contract, or of designs furnished by second party and accepted by Sanitary District; and in the event of any claim or suit or action at law or equity of any kind whatsoever being made or brought against said first party, then first party shall have the right to retain a sufficient amount of money in the same manner and upon the same conditions as hereinafter in the next following clause of this contract provided.

Damages

60. If any damage shall be done by the Contractor or by any person or persons in his employ to the owner or occupants of land, or to any property adjoining or in the vicinity of the work herein contracted to be done, or to a neighboring Contractor, for which the Contractor herein is legally liable, the Engineer shall have the right to estimate the amount of said damage, and to cause the Sanitary District to pay the same to the said owner or occupant, and the amount so paid for such damages shall be deducted from the money due said Contractor under this contract.

61. Said Contractor covenants and agrees to pay all damages for any personal injury sustained by any person growing out of any act or doing of himself or his employes that is in the nature of a legal liability, and he hereby agrees to indemnify and to save the Sanitary District harmless against all suits or actions of every name and description brought against said Sanitary District for or on account of any such injuries or such damages received or sustained by any person or persons by or from said Contractor, his servants, agents or employes, in the execution of said work; or by or in consequence of any failure or negligence in guarding or protecting the same; or by or on account of any act or omission of said Contractor, his agents or employes; and the said Contractor further agrees that so much of the money due to him under and by virtue of this contract, as shall be considered necessary by the Board of Trustees of the Sanitary District, may be retained by the said Sanitary District until such suit or claim for damages, as aforesaid, shall have been settled, and evidence to that effect furnished to the satisfaction of the said Board of Trustees.

62. It is further agreed that in all cases of

question or dispute arising or growing out of this contract in any way regarding the cost or value of extras, variations, allowances, deductions or the amount of damages in any manner growing out of the violation of this contract, the decision of the Engineer under direction of the Committee on Engineering shall be final and binding on both parties hereto.

Responsibility of Contractor.

63. The contractor will be responsible for the safe maintenance of the temporary structure carrying the railroad track or the material for the new bridge and will, upon completion of the permanent structure, remove and place the same at such point near the bridge site as may be designated by the Engineer. All material in the present structure which it is necessary to remove will be taken out, loaded on cars, and turned over to the Rock Island Railroad Co. by the Contractor for this work, the cost to be covered in the price bid for the completed structure.

Time.

64. The Contractor agrees to begin work within fifteen (15) days after the execution of this contract. All work required to be done under this contract shall be completed and ready for inspection on or before January 1st, 1900.

Price.

65. In consideration of the said work being carried on and completed in the time and manner as specified, the said party of the first part agrees to pay to the said party of the second part, and the said party of the second part agrees to receive and accept as full compensation therefor, including the furnishing by him of all necessary material, tools, labor, machinery and appliances, as follows:

For superstructure complete as specified, fourteen thousand seven hundred and twenty dollars ($14,720.00).

Also to furnish extra material in places at a cost as follows:

Extra medium or soft steel, four ($0.04) cents per pound.

Extra iron castings, three ($0.03) cents per pound.

These prices also apply to any reduction of material that may be made by reason of changing plans.

66. The prices proposed must include all royalties for patents or patented material and appliances used in the construction of the work described in the specifications and agreements; and before final payment is made the Contractor shall furnish a satisfactory guarantee against all said claims.

Time and Manner of Payment.

67. It is agreed by the party of the first part that when the entire iron work shall have been delivered at the site of erection, payment shall be made by the party of the second part to the amount of sixty (60) per cent. of the aggregate cost of the work covered by the contract, upon written certificate from the Engineer that such approximate amount of work has been done. The remaining forty (40) per cent. to be paid within thirty (30) days after the completion of the work and its acceptance by the party of the first part.

Certificate.

68. On all work provided for in this contract being completed, in accordance with the contract, to the full satisfaction of the Engineer, and on its being inspected by him and a certificate made by him setting forth the amount of said work, and that the said work has been completed, the said party of the first part agrees to pay to the said party of the second part the amount shown to be due to the said party of the second part by the said certificate of the said Chief Engineer.

Failure to Complete.

69. The entire metal work for the structure herein provided for shall be delivered at the site of the erection on or before December 1st, 1899, and all the work provided to be done under this contract shall be completed and ready for inspection on or before January 1st, 1900.

70. Should there be a failure by second party to deliver said iron work of the character and strength herein provided for by said 1st day of December, 1899, or if, after delivery of same as herein provided, said contractor should fail financially, either before or after having been paid the sixty (60) per cent. of the contract price as hereinafter provided, and be unable to carry out said contract and complete said work, then, in that case, the said party of the first part shall have the power to complete said work by contract or otherwise, at its discretion, and charge up

the cost of so completing the said work to said Contractor. Should the amount remaining unpaid of the contract price not suffice therefor then said Contractor and his bondsmen shall be held liable for the deficiency.

Payment of Laborers.

71. Said Contractor shall pay the laborers employed by him promptly at regular intervals, and at least twice each month, and shall not pay said laborers in script checks, or other evidence of indebtedness, nor in any manner other than with lawful currency of the United States. And if at any time during the progress of said work, said Contractor shall fail or neglect to pay for labor performed and in manner aforesaid, or for material furnished upon said work, then the party of the first part shall have the power to pay for such labor or material out of any money or moneys that may be due to said Contractor, and said amount so paid shall be retained out of any money due or to become due to said Contractor. In any such case the party of the first part is hereby authorized and empowered by said party of the second part to ascertain the amount or amounts due or owing from said Contractor to any laborer or laborers, or to any person for material furnished, in such manner and upon such proof as it may deem sufficient, and without giving any notice of such proceedings to said Contractor, and the amount or amounts so found by the said party of the first part to be due and owing to said laborer or laborers, or to said materialmen, shall be final and conclusive as against said Contractor, and may thereafter be paid over by the said first party to such laborer, laborers or materialmen.

Contractor's Bond.

72. The Contractor shall furnish a bond in the sum of five thousand ($5,000) dollars with good and sufficient sureties, the same to be satisfactory to the Board of Trustees of said Sanitary District, conditioned upon the faithful performance of all the terms and conditions of this contract; and should the sureties on said bond at any time fail financially, or be, in the opinion of the said Board of Trustees, insufficient security for the penalty of said bond, then, in that case, they may, on giving ten 10) days notice thereof in writing, require said Contractor to furnish a new and additional bond in the place of the bond so having become insufficient or worthless.

Final Payment.

73. The said party of the second part further agrees that he shall not be entitled to demand or receive final payment for any portion of the aforesaid work or materials except in the manner set forth in this agreement, nor until each and all of the stipulations hereinbefore mentioned are complied with, and the said Engineer shall have given his certificate to that effect; whereupon the said party of the first part will, at the expiration of thirty (30) days after such completion and delivery of such certificate, pay, and it hereby binds itself to pay, the said party of the second part, in cash, the whole amount of money accruing to said second party under this contract, excepting such sum or sums of money as may be lawfully retained under any of the provisions of this contract hereinbefore set forth. Providing, that nothing herein contained shall be construed to affect the right hereby reserved of the said party of the first part to reject the whole or any portion of the aforesaid work should the said certificate be found to be inconsistent with the terms of this agreement or otherwise improperly given.

IN WITNESS WHEREOF, On the day and year first above written, the said Sanitary District of Chicago has caused this agreement to be signed by its President and attested by its Clerk, and its corporate seal to be hereto affixed, and the said party of the second part has hereunto set its hand..... and seal.....

The Sanitary District of Chicago.

(Signed) By WILLIAM BOLDENWECK,

President.

Attest :

JOSEPH F. HAAS,

[SEAL] *Clerk.*

[SEAL] *Chicago Bridge and Iron Co.,*

By HORACE E. HORTON,

President.

HENRY W. WILDER,

Secretary."

REPORT IN REFERENCE TO AGREEMENTS WITH THE PENNSYLVANIA COMPANY AND THE METROPOLITAN WEST SIDE ELEVATED RAILWAY COMPANY FOR BY-PASS, ETC.

Mr. Smyth, Chairman, presented, and the Clerk read, a report from the Committee on Engineering in reference to, and accompanied by, an agreement in triplicate between the Pennsylvania Company, operating the Pittsburgh, Ft. Wayne and Chicago Railway, the Metropolitan West Side Elevated Railway Company, and the Sanitary District of Chicago, and also an agreement in duplicate between the Sanitary District of Chicago and the Metropolitan West Side Elevated Railway Company for the construction and maintenance of By-pass, etc., in accordance with the terms of a contract entered into between the District and the Pennsylvania Company under date of February 9, 1898, and previously reported on under date of March 17, 1899 (page 5575 of the Proceedings), the report setting forth that the forms of agreements transmitted, have been executed by the officers of the companies, respectively, and recommending that the President and Clerk of the District be authorized and directed to execute the same, and when so executed, that copies thereof be filed with the Clerk.

Mr. Smyth, seconded by Mr. Eckhart, moved that the report be adopted and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—nine. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, June 5, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Having had under consideration the agreement to be executed by the Pennsylvania Company, operating the Pittsburg, Ft. Wayne and Chicago Railway, and The Metropolitan West Side Elevated Railway Company with the District and, also, the contracts to be executed by The Metropolitan West Side Elevated Railway Company and the District the Committee on Engineering herewith reports as follows:

All the agreements herein first above referred to are tripartite in form and are made in accordance with the terms and conditions of the agreement with The Metropolitan West Side Elevated Railway Company last above mentioned; that is to say, under the terms of the said last mentioned agreement, the District acquires the right to cut off and remove about one hundred and four (104) feet of a covered conduit or intake owned and belonging to said The Metropolitan West Side Elevated Railway Company, and running from the west bank of the Chicago River under the tracks and right of way of The Pennsylvania Company to its power station, which is supplied with water by means of said covered conduit or intake. In constructing the By-pass it is necessary for the District to cut off said conduit to the extent mentioned. The Metropolitan West Side Elevated Railway Company heretofore has procured from The Pennsylvania Company the right to construct and maintain said conduit under the right of way and tracks of the said Pennsylvania Company and to have a means of access to said conduit or intake over said Pennsylvania Company's property whenever necessary. The conditions of the agreement made with said The Metropolitan West Side Elevated Railway Company provide, therefore that the District shall procure, in writing, an agreement with said Pennsylvania Company, giving The Metropolitan Company a right to maintain said conduit or intake to be constructed by the District in such manner and with such privileges as The Metropolitan Company had a right to under the terms of its original contract with The Pennsylvania Company. The Metropolitan contract also provides that the District shall construct a new intake and means of access thereto.

The tripartite agreement between The Pennsylvania Company, The Metropolitan Company and the District carries out the terms of the contract between The Metropolitan Company and the District to the extent above mentioned, to-wit: That it procures to the District the right to change the location of said intake of The Metropolitan Company, from The Pennsylvania Company, and, also, the right to The Metropolitan Company to maintain, as shall be constructed by the District, the new intake or tunnel and the means of access thereto.

Both these forms of agreements have been executed by the officers of the Companies respectively and sealed and properly attested.

The Committee, therefore, recommends that the President and Clerk of the District be authorized and directed to execute said agreements on behalf of the District; and, when so executed, that copies thereof be placed on file with said Clerk.

Respectfully submitted,

(Signed) THOMAS A. SMYTH,
Chairman.

J. P. MALLETTE,
B. A. ECKHART,
THOMAS KELLY,
Z. R. CARTER,
FRANK WENTER,
WM. BOLDENWECK,
Committee on Engineering."

(Accompanied by one contract in triplicate and one in duplicate.)

The following is

THE AGREEMENT BETWEEN THE SANITARY DISTRICT AND THE METROPOLITAN WEST SIDE ELEVATED RAILWAY COMPANY:

"This agreement, made and entered into this 21st day of April, A. D. 1899, by and between the Sanitary District of Chicago, hereinafter called the "Sanitary District," party of the first part, and The Metropolitan West Side Elevated Railway Company, hereinafter called the "Railway Company," party of the second part; witnesseth, that,

WHEREAS, The Sanitary District is engaged in improving the Chicago River by deepening and widening it to the extent necessary for supplying to its Main Channel the volume of water required by the Sanitary District law, passed by the Legislature of the State of Illinois, approved May 29th, 1899; and,

WHEREAS, Such necessary flow of water will not pass through the now existing channel of the Chicago River between Monroe street and the south line of Van Buren street; and,

WHEREAS, The said river cannot effectually be deepened between the said streets by reason of the existence of the tunnel of the Chicago Street Railroad Tunnel Company nor widened by reason of the existence of certain bridge piers and other massive permanent structures; and,

WHEREAS, The elevated railroad structure of the said The Metropolitan West Side Elevated Railway Company is located and constructed across the railroad yards and right of way of the Pennsylvania Company between Canal Street and the west bank of the Chicago River, and between Jackson Street and Van Buren Street, and is located and constructed across the said Chicago River by means of a bridge at a point about midway between said Jackson and Van Buren Streets, and the foundations and piers for said structure of said elevated railroad and for the western approach of said bridge are located upon said railroad yards and right of way under a contract in writing dated April 16th, 1894, between the Pennsylvania Railroad Company, lessee of the Pittsburgh, Fort Wayne and Chicago Railway, and the Pittsburgh, Fort Wayne and Chicago Railway Company, as party of the first part thereto, and The Metropolitan West Side Elevated Railroad Company, as party of the second part thereto, reference to which said contract is hereby had, the location of the piers herein referred to being shown upon the blue print hereto attached, marked "Exhibit A" and made a part hereof, which said contract, on the part of the party of the second part thereto, has been transferred to The Metropolitan West Side Elevated Railway Company, the party of the second part to this agreement; and

WHEREAS, The said railroad of The Metropolitan West Side Elevated Railway Company is operated electrically, the electric current being supplied by means of a contact rail to which the power is supplied from the main power station of said Railway Company, located between Throop and Loomis and Van Buren and Congress streets in the said City of Chicago, and the engines employed in said power station are what is known as condensing engines, in the use of which immense volumes of water are constantly required, and to obtain such water the said Railway Company has through its grantors heretofore obtained the necessary legal right to construct, maintain and operate, and through its said grantors has constructed and is now maintaining and operating a tunnel of the capacity of about twenty thousand gallons of water per minute extending under the right of way of said Railway Company from said power statain, located as aforesaid, to the aforesaid right of way of The Pennsylvania Company, and from thence across and under said right of way of said Pennsylvania Company to the Chicago River at

a point immediately north of the foundations and piers of said railroad bridge of said The Metropolitan West Side Elevated Railway Company, the right to construct, maintain and operate said tunnel, under and across said right of way, being secured to said Railway Company by virtue of a contract in writing dated January 18, 1896, between The Pennsylvania Company, operating The Pittsburg, Fort Wayne and Chicago Railway, as party of the first part thereto, and the said The Metropolitan West Side Elevated Railroad Company, as party of the second part thereto, to which said contract reference is hereby had, which said contract, on the part of the party of the second part thereto, has been transferred to The Metropolitan West Side Elevated Railway Company, the party of the second part to this agreement; and

WHEREAS, The Sanitary District, to accomplish the purposes for which it was created, has planned a By-pass or covered conduit passing to the westward of the piers and foundations of said elevated railroad, located at or near to the west bank of the Chicago River, as shown on said "Exhibit A," attached hereto, and has entered into a contract dated February 9, 1898, with The Pennsylvania Company, operating The Pittsburgh, Fort Wayne and Chicago Railway, for the construction and maintenance of said By-pass or covered conduit under the right of way and lands of said Railway Company as shown in said "Exhibit A;" and

WHEREAS, The construction and maintenance of the said By-pass or covered conduit will destroy and render entirely useless that part of the said tunnel of said The Metropolitan West Side Elevated Railway Company under the said right of way of the said Pennsylvania Company as to the easterly end thereof, the length of said end so destroyed and rendered useless being about one hundred and four (104) feet, and will also render useless the intake of said tunnel now located at the eastern end of said tunnel; and

WHEREAS, The said Sanitary District desires to protect the said railway company and its successors and assigns in the full beneficial use of said tunnel, and to provide a new and sufficient intake for said tunnel, located at the intersection of said proposed by-pass or covered conduit with said tunnel, free of all expense or charge to the said Railway Company, and with proper and necessary means of access to said intake for the purpose of operating, cleaning and repairing the same, to the end that the said Railway Company may have the same use and benefit of said tunnel that it would have had had said by-pass or covered conduit not been constructed;

Now, therefore, this agreement witnesseth: That the said Railway Company consents to the said proposed by-pass or covered conduit, subject to the terms and conditions herein expressed, and in consideration of the performance by the Sanitary District of all the covenants and undertakings hereinafter contained hereby consents and agrees that the Sanitary District may construct and maintain the by-pass or covered conduit according to the terms of the aforesaid contract of February 9th, 1898.

The Sanitary District, in consideration thereof, does, on its part, covenant and agree as follows:

(1) The Sanitary District shall, at its own expense and charge, construct, according to the general plans shown on said "Exhibit A," a new intake for said tunnel, at the intersection of said by-pass or covered conduit with said tunnel, with all necessary appliances for filtering, shut offs, gates, valves and other apparatus according to detailed plans to be made by the Sanitary District and to be approved by the said Railway Company, using therein the best material and workmanship to the satisfaction of the said Railway Company.

(2) The Sanitary District shall, at its own cost and expense, construct the necessary means of access to said intake according to detailed plans to be made by it and approved by the said Railway Company, using therein the best material and workmanship to the satisfaction of the said Railway Company.

(3) The Sanitary District shall, at its expense, before interfering with the present tunnel, procure from the Pennsylvania Company, operating the Pittsburgh, Fort Wayne and Chicago Railway, an additional agreement in writing to the agreement dated January 18th, 1896, between said Pennsylvania Company and said The Metropolitan West Side Elevated Railroad Company, which additional agreement shall be duly executed by the said Pennsylvania Company, operating the Pittsburgh, Fort Wayne and Chicago Railway, and shall run to the said Railway Company, its successors and assigns, granting the right to construct, maintain and operate the aforesaid intake and tunnel, located as shown upon said "Exhibit A" attached hereto, and the means of access

to said intake, located as shown upon said "Exhibit A."

(4) The Sanitary District shall, at its own cost and expense, from the time of the commencement of the construction of said by-pass or covered conduit across the territory now occupied by the aforesaid tunnel, and until the said intake and the said means of access thereto are fully completed and ready for operation and until said by-pass or covered conduit is fully completed and ready for operation whereby the said Railway Company shall be enabled to obtain through said tunnel from said covered conduit or by-pass a supply of water equal in volume to that heretofore enjoyed from the Chicago River, provide full and sufficient means for supplying to said tunnel, for use in said power station, an amount of water equal to the capacity of the present tunnel.

It is stipulated and agreed, in this behalf, that the additional cost to the said Railway Company of operating the engines in the aforesaid power station, without the use of water from said tunnel, is and will be the sum of three hundred dollars ($300.00) per day of twenty-four (24) hours, and that if for any reason occasioned by the construction of said by-pass or covered conduit the said Railway Company should be deprived of sufficient water through said tunnel to operate the aforesaid power station, then and in such event during all the time that the said Railway Company shall be so deprived, the Sanitary District shall pay, on demand, to said Railway Company the sum of twelve and 50-100 dollars ($12.50) per hour.

(5) The Sanitary District hereby agrees to have said covered conduit or by-pass fully completed and ready for operation, and a continuous flow of water through the same, on or before the first day of September, 1899, unless delayed by act of second party, time being an essential part of this contract.

(6) The Sanitary District further agrees, in this behalf, that at all times after the completion of said covered conduit or by-pass it will keep and maintain said covered conduit or by-pass properly clean and not allow the same to become choked or filled with any foreign substance whatever, to the end that the said Railway Company, its successors and assigns, may at all times have and enjoy the same supply of water, and of at least the same degree of purity, through said tunnel, as it or they would have enjoyed from the Chicago River through said tunnel, as now constructed.

It is stipulated and agreed in this behalf that the engines now employed in said power station have a six thousand horse power capacity, and that the additional cost of operating said engines, without the use of water from said tunnel, is and will be three hundred dollars ($300.00) per day of twenty-four (24) hours, and that for each additional one thousand horse power hereafter installed in said power station the additional cost of operating the same, without the use of water from said tunnel, is and will be the sum of fifty dollars ($50.00) per day of twenty-four (24) hours, and the said Sanitary District therefore stipulates and agrees that if at any time after the completion of said covered conduit or by-pass the flow of water through said covered conduit or by-pass to its full capacity is temporarily interrupted or suspended through some act done or failure to comply with the terms hereof on the part of the said Sanitary District, other than included in Section 7 hereof, so that the said Railway Company, its successors and assigns, are deprived of the use of sufficient water through said tunnel to operate all engines used by it or them in said power station, then and in every such event for every twenty-four (24) hours that the said Railway Company, its successors or assigns shall be so prevented from using said engines, the Sanitary District shall pay to the said Railway Company, its successors and assigns, the sum of fifty dollars ($50.00) for each and every one thousand horse-power employed by said Railway Company, its successors and assigns, in said power station.

(7) The Sanitary District agrees that if it shall discontinue the use of said covered conduit or by-pass, or if it shall be deprived of the use thereof by reason of its non-compliance with the aforesaid contract of February 9th, 1898, between it and the Pennsylvania Company, or shall be deprived of its use for any other reason, it shall at once reconstruct that part of said tunnel, above described, running from the intersection of the proposed covered conduit or by-pass with said tunnel to the Chicago River, with the necessary intake and access thereto, and in default of so doing, for a period of sixty (60) days after it shall have been deprived of the use of said covered conduit or by-pass, then the said Sanitary District shall pay the sum of fifty dollars ($50.00) per day to said Railway

Company, its successors or assigns, for each one thousand horse power then employed by said railway company, or its successors or assigns, as above mentioned, for the time said railway company, its successors or assigns, shall have been deprived of the full use of said water, including said period of sixty (60) days if so deprived, and said railway company, its successors and assigns, shall have the right to reconstruct the said tunnel as formerly existing, and said Sanitary District shall pay for the cost of such reconstruction, if so reconstructed, to said railway company, its successors or assigns, as liquidated damages and release in full for the cost of such reconstruction, the sum of ten thousand ($10,000) dollars.

(8) The Sanitary District shall construct the aforesaid covered conduit or By-pass under the elevated railroad structure of said The Metropolitan West Side Elevated Railway Company with the greatest care, and in such a manner as to prevent any injury whatsoever to said structure or to the piers and foundations thereof or to the piers and foundations of said railroad bridge or to said railroad bridge itself, and in the event that any damage be occasioned to any of said piers, or foundations or bridge, the Sanitary District shall repair and make good such damage at its own cost and expense and save the railway company harmless therefrom, or in default thereof, the railway company may repair and make good such damages, and in such event the Sanitary District shall pay to said railway company the full cost of such repairs.

In witness whereof, the Sanitary District of Chicago has caused these presents to be signed in its name by its President, and to be attested by its Clerk, and its corporate seal to be hereto affixed, and the said The Metropolitan West Side Elevated Railway Company has caused these presents to be signed in its name by its President, and to be attested by its Secretary, and its corporate seal to be hereto affixed, the day and year first above written.

(Signed) *Sanitary District of Chicago,*
By WILLIAM BOLDENWECK,
Attest: *President.*
[SEAL] JOSEPH F. HAAS, *Clerk.*

The Metropolitan West Side Elevated Railway Company.
By D. MACALLISTER,
Attest: *President.*
[SEAL] GEORGE HIGGINSON, JR., *Secretary.*

(Plans attached.)

The following is

THE AGREEMENT BETWEEN THE PENNSYLVANIA COMPANY, THE METROPOLITAN WEST SIDE ELEVATED RAILWAY COMPANY AND THE SANITARY DISTRICT.

"*This Agreement*, made and entered into this twenty-sixth day of May, A. D. 1899, by and between The Pennsylvania Company, operating The Pittsburgh, Fort Wayne and Chicago Railway, as party of the first part, The Metropolitan West Side Elevated Railway Company, its successors and assigns, as party of the second part, and the Sanitary District of Chicago, as party of the third part, witnesseth, that

WHEREAS, The said party of the first part did, on the eighteenth day of January, 1896, make and enter into with The Metropolitan West Side Elevated Railroad Company, a certain contract attached hereto, as Exhibit 1, granting the right to said The Metropolitan West Side Elevated Railroad Company to construct a brick conduit for the passage of water through the ground of The Pittsburgh, Fort Wayne and Chicago Railway Company between Canal Street and the South Branch of the Chicago River at a point between Van Buren and Jackson Streets, in the City of Chicago, according to plan and profile indicated on map attached and made part of said agreement and marked "Exhibit A," which said contract has been transferred by said The Metropolitan West Side Elevated Railroad Company to the said The Metropolitan West Side Elevated Railway Company; and

WHEREAS, The Sanitary District of Chicago, a municipal corporation, is engaged in improving the Chicago River by deepening and widening it to the extent necessary for supplying its Main Channel with the volume of water required by the Sanitary District Law, passed by the Legislature of the State of Illinois and approved May 29th, 1889, and to accomplish its purpose said Sanitary District did enter into a contract dated February 9, 1898, with the said Pennsylvania Company operating the Pittsburgh, Fort Wayne and Chicago Railway, aforesaid, for the construction and maintenance of a by-pass or covered conduit along the Chicago River under the right of way and lands of said Railway Company as shown on "Exhibit A" attached and made part of said contract, a copy of which contract is hereto attached as "Exhibit 2;" and

WHEREAS, In the doing of the work

contemplated under and by virtue of said contract it is necessary for the said Sanitary District of Chicago to destroy and render useless about one hundred and four (104) feet of the conduit and intake as now located and constructed under said contract between the said Pennsylvania Company and the said The Metropolitan West Side Elevated Railroad Company.

WHEREAS, The said Sanitary District has agreed with the said The Metropolitan West Side Elevated Railway Company to make the necessary changes and reconstruct the east one hundred and four (104) feet of said conduit with intake according to the terms and conditions of the agreement, a copy of which is hereto attached marked "Exhibit 3."

WHEREAS, In order to make such changes and reconstruct such conduit and intake it is necessary to obtain an additional contract in writing to the said agreement dated January 18, 1896, between said Pennsylvania Company and said The Metropolitan West Side Elevated Railway Company, which shall give to the said second party, its successors and assigns, the right to construct, maintain and operate the intake and tunnel located as shown upon "Exhibit 4," attached hereto, and the means of access to said intake.

Now, therefore, in consideration of the premises, the said party of the first part, to the extent that it has authority, hereby grants unto said second party the additional right to construct, or have constructed, the intake and tunnel as indicated and shown upon the map or plat hereto attached and made part hereof marked "Exhibit 4," upon like terms and conditions as mentioned in the agreement of January 18, 1896, between the parties thereto. Also hereby giving the right of approach and access through and over the premises of said first party to said intake as shown upon said "Exhibit 4;" said approach being restricted to a route from Van Buren Street; thence along and over the driveway nearest the river used by teams approaching the freight house of said first party, thence to said intake.

It is expressly understood, that the right to so locate, construct, maintain and operate said intake and tunnel is additional to the right to construct, operate and maintain the conduit and intake as provided by said agreement dated January 18th, 1896, and upon the terms and conditions as therein provided.

It is further expressly agreed and understood, that the said first party shall not be liable for any loss, damage or injury sustained by any person acting for or on behalf of the said second or third parties or either of them in approaching, entering or working in the said intake or tunnel and appurtenances thereto, and the said parties of the second and third part hereby agree to save harmless and indemnify said first party against any less or damage sustained by any person while approaching, entering or working in and about the said intake, tunnel and its appurtenances having occasion under the terms and provisions hereof to approach, enter and work in the same as an employee or agent of the said second and third parties, or either of them.

It being understood, that upon the termination of the said agreement between the Sanitary District of Chicago and said The Metropolitan West Side Elevated Railway Company, or its successors or assigns, under any of the provisions therein contained, that said The Metropolitan West Side Elevated Railway Company, or its successors or assigns, have the right to relocate and reconstruct said tunnel and intake as shown and provided in the said agreement of January 18th, 1896, and operate and maintain the same upon the terms and conditions provided in said last mentioned agreement.

The said Sanitary District of Chicago, in consideration of the premises and granting of the means of access aforesaid to said intake and in payment for the use thereof, hereby agrees to pay unto said Pennsylvania Company the sum of one hundred dollars ($100) per annum, for each year that said means of access to intake is used by said second party, its successors or assigns, for said purposes. Said rental shall begin the first day of May, 1899, and be payable in semi-annual installments of fifty dollars ($50.00) each, in advance, on the first day of May and first day of November, in each year.

Should said third party fail to pay any installment of rent within thirty days of the date herein fixed for the payment of the same the said first party may, at its option, and upon ten days written notice and subsequent delinquency, declare a forfeiture of all rights of access under this agreement and all the rights and privileges as to means of access to said intake hereby granted, or intended to said third party, shall cease and determine; and thereupon said first party may take possession of the land so included within said means of access to intake and

all structures and materials which may have been placed therein and dispose of the same for its own interest, and fill, or otherwise exclude all access to said intake according to its own interest and judgment; provided, however, in every such case, that nothing herein contained shall be construed as preventing the said second party from reconstructing the said tunnel and the said intake as the same were originally located and constructed under the provisions of the aforesaid contract of January 18th, 1896, nor from operating and maintaining the same, when so reconstructed, as provided in said last mentioned contract, but said second party shall in every such case as hereinbefore provided have the right to reconstruct and relocate said tunnel and said intake in the same manner as the same were originally located and constructed under said agreement of January 18th, 1896.

It is further agreed that whenever said Sanitary District of Chicago shall determine that the use and maintenance of said by-pass is not necessary to its purposes, then the said Sanitary District of Chicago shall have the right to terminate this contract upon giving six months' notice to said first party of its election so to do, and all liability and obligations whatsoever of said third party under this contract shall thereafter cease, provided, however, that in case of such termination of this contract, the second party shall have the right as hereinbefore provided to reconstruct its tunnel and intake as now located.

It is further agreed that whenever the use of the ground occupied by the means of access to said intake, as shown upon said "Exhibit 4," shall, in the opinion of said first party, require a change in location and conditions of said access from that indicated on said plat, upon thirty days' written notice thereof by said first party, then said third party agrees, at its own cost and expense, to make such changes of location or condition, it being understood, however, that such change shall not increase the said rental to be paid as aforesaid, provided, however, that no change in the location or conditions of said access shall be made whereby said second party shall not have and enjoy as convenient and as ample access as is shown on said "Exhibit 4."

It is further mutually agreed that the construction of said tunnel, intake and access thereto, shall be, as to materials and mode of construction, satisfactory to the Chief Engineer of said first party.

It is mutually agreed that this agreement shall be binding upon and shall inure to the respective successors and assigns of the parties hereto.

In witness whereof, the Pennsylvania Company has caused these presents to be signed in its name by its Vice-President, and to be attested by its Secretary, and its corporate seal to be hereto affixed, and the said The Metropolitan West Side Elevated Railway Company has caused these presents to be signed in its name by its President, and its corporate seal, attested by its Secretary, to be hereto affixed, and the said Sanitary District of Chicago has caused these presents to be signed in its name by its President, and its corporate seal, attested by its Clerk, to be affixed hereto the day and year first above written.

(Signed) *Pennsylvania Company*,

By JOSEPH WOOD,

Third Vice-President.

Attest:

S. B. LIGGETT,

Secretary.

The Metropolitan West Side Elevated Railway Company,

[SEAL] By D. MAC ALLISTER,

President.

Attest:

GEO. HIGGINSON, JR.,

Secretary.

Sanitary District of Chicago,

By WILLIAM BOLDENWECK,

President.

Attest:

JOSEPH F. HAAS,

[SEAL] *Clerk.*

(Plans attached.)

REPORT IN REFERENCE TO AGREEMENTS WITH DAVID OLIVER.

Mr. Smyth, Chairman, presented, and the Clerk read, a report from the Committee on Engineering in reference to and accompanied by forms of agreement and memorandum of agreement, both in duplicate, between the District and David Oliver, providing that said Oliver shall deliver to the District a quit-claim deed of all his interest in certain land in the School Section Addition to Joliet and that the District in certain contingencies shall furnish him with certain power, by electricity or otherwise, as set forth in the agreements and memoran-

dum; the report recommending that said agreement and memorandum of agreement be executed by the President and Clerk of the District, and when the same are executed by said Oliver that copies be placed on file with the Clerk.

Mr. Smyth, seconded by Mr. Braden, moved that the report be adopted and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—nine. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, June 5, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—The Committee on Engineering presents forms of agreement between the District and David Oliver, of the City of Chicago, providing that the said Oliver shall deliver to the District a quit-claim deed of all his interest in all that part of Lot three (3) of Block one hundred and seven (107), and of Lot eight (8) of Block ninety-eight (98), School Section Addition to Joliet, that lies east of the slope of the Illinois and Michigan Canal. Permission, however, to be accorded him to use that part of Lot three (3) during and until such time as the water power now in existence thereon is rendered useless or destroyed by reason of the construction of a dam south of the point of which said water power is presently situated. And said Oliver agrees that, during the existence of said water power, he will comply with the provisions of a decree heretofore rendered in the case of the Canal Commissioners vs. The Sanitary District of Chicago, entered of record in the Circuit Court of Will County, and, more especially, with that part of said decree which is set forth on page four (4) of the agreement here presented. The District agrees, under the terms of said agreement, that should a dam be constructed, as provided in said decree, that it will deliver by electricity, or by such other method of transmission of power as will be effective, installed ready for use, an amount of power which will be equal to the power which said Oliver, at the time of such change of power, may be entitled to receive from the Canal Commissioners under the terms of any existing lease between said Commissioners and himself.

There is, also, accompanying the agreement above referred to, a memorandum of agreement between the said Oliver and the District whereby the District assures said Oliver that, in case the District shall destroy the water power situated and being upon the premises mentioned in the deed and agreement to be delivered to it, the District will furnish said Oliver a mode for transmission by means of electricity or otherwise of the same amount of power as is now being furnished him by and under his lease with the Canal Commissioners.

The Committee recommends that said agreement and memorandum of agreement be executed by the President and Clerk of the District and, when the same are executed by said Oliver, that copies thereof be placed on file with the Clerk of the District.

Respectfully submitted,

(Signed) THOMAS A. SMYTH,
Chairman.
J. P. MALLETTE,
THOMAS KELLY,
B. A. ECKHART,
FRANK WENTER,
JOS. C. BRADEN,
WM. BOLDENWECK,
Committee on Engineering."

The following is

THE AGREEMENT:

Articles of Agreement, Made and entered into this 24th day of May A. D. 1899, by and between the Sanitary District of Chicago, a municipal corporation duly organized and existing under and by virtue of the laws of the State of Illinois, party of the first part, and David Oliver of the City of Chicago, County of Cook, and State of Illinois, party of the second part.

Witnesseth, That whereas, there is now pending in the Circuit Court of Will County a certain suit or proceeding for condemnation of certain property, situated and being in Section sixteen (16), Township thirty-five (35) North, Range ten (10), East of the third P. M., said suit referred to, being entitled, "The Sanitary District of Chicago vs. Alanson Sweet, et al.," being General Number 17,432, and the said land

last herein above referred to is particularly described in detail in an amended petition filed by the party of the first part in said court, December 31, 1898, and also in a certain other amendment to the amended petition filed in said court May 19, 1899; and

WHEREAS, The said David Oliver is the owner of Lots two and three (2 and 3) in Block one hundred and seven (107), and also Lot eight (8) in Block ninety-eight (98), School Section Addition to Joliet, and a portion of said Lots three (3) and Lot eight (8) extends east of the slope of the tow path of the Illinois and Michigan Canal, and said Lot two (2) extends easterly across the said canal, but such portion of said Lot two (2) as extends across said canal and is on the east side thereof is covered by the said tow path of the Illinois and Michigan Canal; and

WHEREAS, Also and on and prior to April 20, 1899, the said David Oliver and persons under whom he claimed and to whose interest he had by proper conveyance succeeded, had in actual use and occupation a tunnel extending from the west side of said Canal in an easterly direction across and under said Canal, and across, through and under said tow-path with an open channel continuing from about the center of the said tow-path, embankment or grade of the Illinois and Michigan Canal to its easterly edge, and thence across a portion of said Lot three (3) in Block one hundred and seven (107) aforesaid, and thence discharges in the Desplaines River, said tunnel under the said Canal and the said open channel aforesaid being theretofore and at the time of the commencement of the said suit above referred to, and at the present time, used for a tail race to a certain water power used by the said David Oliver, the head race thereto being upon that part of Lot two (2) in said Block one hundred and seven (107) aforesaid lying west of said Canal, and that the said head race upon the west side of said Canal and the said tunnel and tail race has been in existence and used for water power purposes for many years last past; and

WHEREAS, After the filing of the petition in this cause, and on, to-wit, the 20th day of April, 1899, said David Oliver entered into a lease with the Canal Commissioners of the State of Illinois for the period of ten years, which said lease provided that the said Canal Commissioners, in consideration of the rents reserved in said lease, covenanted with the said David Oliver upon the express condition, that the said David Oliver should continue during the whole of the term to comply with all and singular the limitations and conditions in said lease contained, and in every respect perform all the stipulations of said agreement by said David Oliver to be by him performed, the said Canal Commissioners agreed therein and thereby to sell and lease to the said David Oliver for the term of ten years from and after the 1st day of January, A.D. 1898, subject to the restrictions and conditions in said lease contained, the use and occupation of water sufficient to drive one thirty (30) inch Victor turbine water wheel, and the necessary machinery connected therewith.

The number of cubic feet of water per minute required for said purpose being understood and agreed to be two thousand nine hundred and ninety-one (2,991) and the power produced equal to sixty-two and forty hundredths (62 40-100) horse power; the same being in accordance with the catalogue and tables of the Stilwell and Bierce Manufacturing Company, of Dayton, Ohio, manufacturers of the Victor turbine water wheel, and the head and fall being understood to be thirteen (13) feet.

The water so leased to be taken out of the Canal on the berm side thereof opposite Lot number two (2) in Block one hundred and seven (107), School Section Addition to Joliet, in such manner and as directed by the Canal Commissioners or any authorized agent acting under them, for the use and occupation of which said water the said David Oliver by the terms of said lease agreed to pay at the rate of twelve dollars ($12.00) per horse power per annum; and

WHEREAS, At the time of the execution of said lease there was a certain decree of the Circuit Court of Will County of record in said court in the case of the Canal Commissioners vs. The Sanitary District of Chicago then in full force and effect, not reversed, annulled or set aside, and in all respects valid; and among other provisions contained the following:

"Thirteenth—And the Court further finds, by agreement and consent of the parties hereto, that in case the Sanitary District of Chicago, or any person acting under and by its authority or consent, should hereafter erect any dam or dams upon property and lands now or hereafter owned or controlled by said Sanitary District and across the Desplaines

River at any point where such dam or dams, or the pool formed thereby, would injure or destroy any of the water power rights then existing, the property of the State of Illinois, upon the Channahon level of the said canal, that then and in that case said Sanitary District shall, at its own cost and expense, transmit to and install, ready for use, at the point or points where such then existing water power rights on the Channahon level may be injured or destroyed by said dam, an amount of actual horse power not exceeding 500 horse power, which shall equal in units of actual horse power that of the power which may be destroyed or injured by the construction of such dam." And,

WHEREAS, The quantity of water which the party of the first part is authorized by the act of the Legislature under which it is organized, and by the provisions of said decree is recognized, will diminish the head or fall at said water power opposite Lot two (2) aforesaid, and said decree makes provision for maintaining the efficiency of said power by discharging into said Illinois and Michigan Canal at Dam Number one (1) a sufficient quantity of water in excess of the present discharge to compensate for said loss of head or fall.

Now, therefore in consideration of the said David Oliver executing and delivering to the said Sanitary District of Chicago, a quit-claim deed of all his interest in all that part of Lot three (3), Block one hundred and seven (107), and Lot eight (8), Block ninety-eight (98), School Section Addition to Joliet, that lies east of the slope of the tow-path of the Illinois and Michigan Canal, the said party of the first part covenants and agrees with the said David Oliver to permit him to use said part of Lot three (3) so being east of the slope of the tow-path of the said Illinois and Michigan Canal during and until such time as said water power is rendered useless or destroyed by reason of the construction of a dam south of the point where said water power now is, and that during the existence of such water power at said point the said party of the first part will comply with the provisions of said decree by discharging the quantity of water into said canal provided for in said decree. And the said party of the first part further covenants and agrees with the said party of the second part, that should said dam be constructed as provided in said decree in The Canal Commissioners vs. The Sanitary District of Chicago, that the party of the first part will deliver by electricity or by such other method of transmission of power as will be effective, and install ready for use, at the point where the said David Oliver now has his water power installed, an amount of power in units of horse-power which will be equal to the power which he, at the time of such change of power, may be entitled to receive from the Canal Commissioners of the State of Illinois under the terms of any then existing lease between said Canal Commissioners and himself, should the said David Oliver then be a lessee of power from the said Canal Commissioners and have the consent of said Canal Commissioners to have said power so transmitted to said point and that the party of the first part will continue to so transmit said power to such place so long as so directed by said Canal Commissioners, but it is understood that the party of the first part, by virtue of the decree of the Will County Circuit Court, heretofore referred to in the cause of the Canal Commissioners vs. The Sanitary District of Chicago is not required to deliver in the aggregate to all of the lessees of said Canal Commissioners on the Channahon level thereof by transmission of power more than five hundred actual horse power.

It is further covenanted, understood and agreed that all the covenants, rights, duties and obligations of the respective parties to this agreement shall extend to and be binding upon the grantees, assignees and successors of the respective parties.

In witness whereof, The said Sanitary District of Chicago has caused this agreement to be executed by its President and the Clerk of said party of the first part under its corporate seal, and the party of the second part in like manner has executed this agreement under his hand and private seal.

The execution of this agreement is in duplicate.

Sanitary District of Chicago,

(Signed) By WILLIAM BOLDENWECK,

Its President.

Attest:

JOSEPH F. HAAS,

[SEAL.] *Clerk.*

[SEAL.] DAVID OLIVER."

The following is

THE MEMORANDUM OF AGREEMENT:

"WHEREAS, The Sanitary District of Chicago and David Oliver, of the City of Chicago, County of Cook and State of Illinois are about to enter into an agreement and conveyance relative to certain water power and water power rights at Joliet, being situated on the Channahon level of the Illinois and Michigad Canal, whereby, among other things, the said David Oliver conveys to said Sanitary District of Chicago certain lots and lands in the City of Joliet, county and state aforesaid, and the Sanitary District, for a limited period, gives to the said Oliver the right to use said lands in a certain manner;

Now, therefore, in consideration of the said agreement and the said conveyance, it is further agreed between said Sanitary District of Chicago, as party of the first part, and said David Oliver, as party of the second part, as follows:

First—Whenever said Sanitary District shall destroy the water power situated and being upon the premises mentioned in said deed and agreement, that then, and in that case, the said Sanitary District shall and hereby covenants that it will furnish to the said Oliver, to be by him used in the place of his water wheel and tail race, a motor for transmission by means of electricity, or, if by other means, then a proper motor or engine which shall be of sufficient capacity to furnish to him, said Oliver, the same amount of power that is now being furnished to him by and under his lease with the Canal Commissioners of the State of Illinois, to-wit: Sixty-two and forty hundredths (62.40) horse power, said motor or engine, upon delivery, to become the property of the said Oliver and to be by him maintained and kept in repair at his own cost and expense, and the Sanitary District of Chicago shall not be required to do more than install at said Oliver's plant or place of business one electric motor or other engine.

Second—It is further covenanted, understood and agreed that all the covenants, rights, duties and obligations of the respective parties to this agreement shall extend to and be binding upon the grantees, assignees and successors of the respective parties.

In Witness Whereof, The said Sanitary District of Chicago has caused this agreement to be executed by its President and the Clerk of said party of the first part under its corporate seal, and the party of the second part in like manner has executed this agreement under his hand and private seal.

The execution of this agreement is in duplicate.

Sanitary District of Chicago,

By WILLIAM BOLDENWECK,

Its President.

Attest:

JOSEPH F. HAAS,

[SEAL] *Clerk.*

[SEAL] DAVID OLIVER."

FINAL PAYMENT ON CONTRACT FOR SUPERSTRUCTURE OF S. W. BOULEVARD BRIDGE ACROSS MAIN CHANNEL ON SECTION "O."

Mr. Smyth, Chairman, presented, and the Clerk read, a report from the Committee on Engineering with reference to, and accompanied by, the final certificate of the Chief Engineer as to the completion of the contract with the J. G. Wagner Company for "the superstructure of the Southwest Boulevard bridge across the Main Channel on Section O," the report recommending that the President and Clerk be authorized and directed to make final payment to said The J. G. Wagner Company in the sum of $2,688,-07 on the execution of a receipt and release in full of all claims and demands.

Mr. Smyth, seconded by Mr. Mallette, moved that the report be adopted and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Kelly, Mallette, Smyth and Wenter—eight. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, June 5, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—The Committee on Engineering herewith presents the final certificate of the Chief Engineer of the District in favor of The J. G. Wagner Company, for work done covered by the contract of said company, dated October 1st, A. D. 1896, and the revised acceptance thereof, dated October 4, A. D.

1897, for the superstructure of the Southwest Boulevard Bridge across Section "O" of the Main Channel. The amount certified to be due in said certificate is two thousand six hundred and eighty-eight dollars and seven cents ($2,688.07).

The Committee has examined and considered the subject matter thereof and recommends as follows:

That the President and Clerk of the District be authorized and directed to make final payment to said The J. G. Wagner Company in the sum of two thousand six hundred and eighty-eight dollars and seven cents ($2,688.07), the amount found to be due in the certificate aforesaid, when said company shall have executed, in favor of the District, a receipt and final release in full for all claims and demands of whatsoever kind or nature arising under said contract.

Respectfully submitted;

(Signed) THOMAS A. SMYTH,
Chairman.

J. P. MALLETTE,
Z. R. CARTER,
FRANK WENTER,
THOMAS KELLY,
WM. BOLDENWECK.
Committee on Engineering."

(One enclosure.)

The following is

THE FINAL CERTIFICATE OF THE CHIEF ENGINEER:

"CHICAGO, June 3, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I hereby certify that The J. G. Wagner Company (formerly Julius G. Wagner) has completed all of the work covered by its contract dated October 1, 1896, and by its revised acceptance dated October 4, 1897 (see page 4253 of Proceedings) for the superstructure of the Southwest Boulevard Bridge across the Main Channel on Contract Section "O," to the full satisfaction of the Chief Engineer and in accordance with the terms of the said contract with this District.

This certificate is given subject to any unaccrued or unmatured obligations imposed by the contract.

The following is a statement covering same:

To metal in superstructure, 1,458,809 lbs., at 3.41c	$49,745 38
To lumber, 101,253 ft. B. M., at $18.50 per thousand	1,873 18
To cedar block paving, 1,585 sq. yds., at 90c	1,426 50
Total	$53,045 06
Less amount paid on previous estimates	50,356 99
Amount due and unpaid	$ 2,688 07

Respectfully submitted,

(Signed) ISHAM RANDOLPH,
Chief Engineer."

ADJOURNMENT.

On motion of Mr. Smyth, seconded by Mr. Kelly, the Board then adjourned.

Joseph F. Haas
Clerk.

PROCEEDINGS

—OF THE

BOARD OF TRUSTEES

—OF THE—

SANITARY DISTRICT OF CHICAGO.

JUNE 14, 1899.

OFFICIAL RECORD.

Published by authority of the Board of Trustees of the Sanitary District of Chicago.

REGULAR MEETING.

The four hundred and forty-second regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Wednesday, June 14, 1899, at 2 o'clock P. M.

On roll-call Messrs. Boldenweck, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—eight members, were present.

President Boldenweck then called the Board to order.

MINUTES.

The minutes of the special meeting held June 3, 1899, and of the regular meeting held June 7, 1899, were approved as printed on motion of Mr. Kelly, seconded by Mr. Mallette.

VOUCHERS.

The Clerk presented the following vouchers :

ENGINEERING DEPARTMENT.

A. P. Little (carbon paper)	$ 4 00
A. C. McClurg & Co. (stationery)	17 32
Thayer & Jackson Stationery Company (stationery)	20 61
Stromberg, Allen & Co. (stationery)	26 96
P. F. Pettibone & Co. (stationery)	49 91
John F. Higgins (printing)	33 00

Goes Lithographing Company (printing)	$ 12 00	
Burke & James (photo supplies)	23 02	
Hans Isak (gauge reading, April, 1899)	10 00	
Hans Isak (gauge reading, May, 1899)	10 00	
The A., T. & S. F. Ry. Co. (track repairs)	19 80	
Wygant & Ayers (rent, Corwith, April and May, 1899)	25 00	
J. H. Alexander (rent, Lockport, May, 1899)	17 00	
White Rock Mineral Spring Company (water)	18 75	
Marshall Field & Co. (toweling)	3 50	
Henry Gebhardt (shelving, etc.)	23 18	
Frederick Post Company (drafting materials, etc.)	17 65	
A. H. Abbott & Co. (drafting materials, etc.)	11 64	
Keuffel & Esser Company (drafting materials, etc.)	21 80	
Eugene Dietzgen Company (drafting materials, etc.)	10 34	
Eugene Dietzgen Company (blue prints)	19 71	
Pearson Bros. (blue prints)	7 84	
W. M. Hughes (traveling and expense)	14 00	
Wm. Trinkaus (traveling and expense)	28 39	
H. B. Alexander (traveling and expense)	24 25	
W. T. Keating (traveling and expense)	46 95	
*G. M. Wisner (traveling and expense)	56 92	
*Ralph Modjeski (services)	309 10	
*Pittsburgh Testing Laboratory, Ltd. (inspecting iron and steel)	172 15	
*Robert W. Hunt & Co. (inspecting iron and steel)	1,111 00	
		$ 2,165 79

LAW DEPARTMENT.

Frank Shepard (labels)	$ 3 00	
Frank Vander Bogart, Clerk (fees)	3 50	
Chicago Law Book Company (law book)	5 50	
Edward Thompson Company (law book)	6 00	
L. H. Mottinger, Sheriff (fees)	10 30	
Canal Commissioners (sundries)	22 50	
D. Barrett & Co. (livery)	48 50	
*E. B. Sherman (Master fees, etc)	94 20	
*The Gunthorp-Warren Printing Company (printing)	203 25	
*J. W. Nadelhoffer (expense)	183 00	
*J. W. Nadelhoffer (expense)	74 95	
		$ 654 70

GENERAL ACCOUNT.

John F. Higgins (printing Proceedings, etc., May, 1899)		$ 640 59

MAINTENANCE ACCOUNT.

Wm. O'Connell (hardware)	$ 7 41	
Barrett Hardware Company (hardware)	11 35	
James Gregory (repairing boilers)	13 10	
Heggie Bros. (repairing boilers)	21 30	
Dearborn Drug and Chemical Works (boiler compound)	36 00	
H. B. Alexander (expense)	42 65	
*Illinois Oil Station (oil)	102 99	
*Weaver Coal Company (coal)	284 08	
*Weaver Coal Company (coal)	293 22	
*The Chicago and Alton Railroad Company (pumping, Section 15)	935 45	
		$ 1,747 55

*CONSTRUCTION ACCOUNT.

Halvorson, Richards & Co. (Section E, June 1, 1899)	$ 4,572 27	
Christie & Lowe (Bear Trap Dam, sundries)	690 00	
Christie & Lowe (Bear Trap Dam, sundries)	215 99	
Lydon & Drews Company (By-pass, sundries)	6,987 38	

Hayes Bros. (Belt Railway temporary bridge)	$ 117 10	
Hayes Bros. (moving pumps)	98 17	
Hayes Bros., et al. (C., M. & N. Bridge)	139 74	
Chicago Terminal Transfer Railroad Company (P. H. temporary bridge)	281 95	
The A., T. & S. F. Ry. Co. (Section 8, bridge expense)	121 53	
The A., T. &S. F. Ry. Co. (Section G, track deviation)	2,351 76	
A. T. Wilcox (Section O—P. H. Bridge)	184 58	
Werden Buck (Section 6, cement)	143 88	
Geo. M. Huss (Section O—P. H. Bridge)	770 45	
Crerar, Adams & Co. (Section K—Belt Railway tracks)	67 26	
Continental Bolt and Iron Works (Section O, pumps)	20 16	
Dolese & Shepard Company (By-pass, sundries	50 40	
P. T. Dunn & Co. (lighting)	14 00	
		$16,821 62
Grand total		$22,080 25

* To be paid by warrants, with interest coupons attached, drawn against the Tax Levy for 1899.

Mr. Carter, seconded by Mr. Wenter, moved that the vouchers as read and shown above be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Boldenweck Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—eight. Nays—none.

Upon this result the President declared the motion carried.

WEEKLY REPORT ON EMPLOYES.

The Clerk presented a report, in accordance with the rules, showing the number of persons in the employ of the District for the week ending June 10, 1899, which was read and by unanimous consent was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, June 14, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the week ending June 10, 1899, as the same have been reported to me:

Engineering department	81
Maintenance account	9
Clerical department	5
Law department	8
Treasury department	1
Police department	29
General	3
Total employes	136

Respectfully submitted,

(Signed) JOSEPH F. HAAS,
Clerk."

MONTHLY REPORT FROM CLERICAL DEPARTMENT.

The Clerk presented a report from the Clerical Department for the month of month of May, 1899, which was read and by unanimous consent was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, June 1, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I herewith submit the report of the Clerical Department for the month of May, 1899.

The total expenditure of the District for the month was $956,961.97, of which amount the sum of $35,261.42 was paid in regular warrants; $199,002.13 in 1899 Tax Levy Warrants, and the sum of $722,698,42 by the Treasurer of the District, for which no warrant was required. Of the 1899 Tax Levy Warrants issued, the sum of $400.39 was placed in the hands of the Treasurer and additional regular warrants drawn in the aggregate for this amount against the same, as per authority of the Board. Of the amount paid by the Treasurer the sum of $119.00 was for 1896 Warrants Redeemed, $693,556.74 for 1898 Tax Warrants redeemed, and $24,022.68 for interest on warrants redeemed.

The total amount expended on account of, and charged to the Clerical Department during the month of May was $1,089.07, of which amount the sum of $1,083.33 was for salaries and $5.74 was for general office expenses.

There are no outstanding liabilities

against the Clerical Department, and the expenditure for the present month will be about $1,100.

The total amount expended for account of, and charged to the General Account during the month of May was $5,170.76, divided as follows:

Rent for May, 1899	$ 458 33
Printing	284 04
Streams examination	874 43
Salaries	2,543 33
General expenses	1,010 63
Total	$5,170 76

The expenditure for the present month for the General Account will be about $3,000.

Of the total amount of 1896 Tax Levy Warrants issued, there is now outstanding the sum of $12,590.35; of the 1897 Tax Levy Warrants issued there is now outstanding the sum of $15,119.00; of the 1898 Tax Levy Warrants issued, there is now outstanding the sum of $898,995.56, and of the 1899 Tax Levy Warrants, there is now outstanding the sum of $596,747.03.

The following is a tabulated statement of total expenditures for the month of May, 1899.

Account.	Regular Warrants.	1899 Tax Levy Warrants.	Paid by Treasurer.	Total for Month.
Engineering Department	$ 30 21	$ 10,743 05	.....	$ 10,773 26
Construction	.....	114,412 50	.....	114,412 50
Clerical Department	.....	1,089 07	.....	1,089 07
Law Department	215 80	4,575 77	.....	4,791 57
Land	15 41	.....	.....	15 41
Treasury Department	.....	166 66	.....	166 66
General	.....	5,170 76	.....	5,170 76
Police Department	.....	2,489 80	.....	2,489 80
Maintenance	.....	1,400 02	.....	1,400 02
Capitalization and Maintenance of Bridges	.....	58,954 50	.....	58,954 50
Interest and Premium	35,000 00	.....	.....	35,000 00
1896 Tax Warrants Redeemed	.....	.....	$ 119 00	119 00
1898 Tax Warrants Redeemed	.....	.....	698,556 74	698,556 74
Interest on Warrants Redeemed	.....	.....	24,022 68	24,022 68
Total	$ 35,261 42	$199,002 13	$722,698 42	$ 956,961 97

Respectfully submitted,

(Signed) JOSEPH F. HAAS, *Clerk.*"

DEPOSIT OF APPROPRIATION TO CREDIT SPECIAL COMMISSIONERS.

The Clerk presented a report setting forth that, in accordance with the action of the Board of Trustees at the meeting held June 3, 1899 (page 5843 of the proceedings), he had placed the sum of $25,000 in the Chicago National Bank to the credit of the "Special Commissioners Chicago Drainage Canal," which, by unanimous consent, was ordered received, printed and placed on file.

The following is

THE REPORT:

"CHICAGO, June 14, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Pursuant to instructions contained in the ordinance passed by your Honorable Body, June 3, 1899 (page 5843 of the proceedings), I have this day placed the sum of twenty-five thousand dollars ($25,000.00) in the Chi-

cago National Bank, to the credit of the "Special Commissioners Chicago Drainage Canal."

Attached hereto, for filing, is the receipt of the Chicago National Bank.

Respectfully submitted,

(Signed) JOSEPH F. HAAS,
Clerk."

(One enclosure.)

REPORT IN REFERENCE TO COMPLETION OF CONTRACT FOR SUPERSTRUCTURE OF A., T. & S. F. BRIDGE AT WEST END OF SECTION N.

Mr. Smyth, Chairman, presented, and the Clerk read, a report from the Committee on Engineering with reference to, and accompanied by, the final certificate of the Chief Engineer as to the completion of the contract with the Carnegie Steel Company, Limited, for the superstructure of the A., T. & S. F. bridge at west end of Section N, the report recommending that the President and Clerk of the District be authorized and directed to pay on the voucher of the Chief Engineer the sum found to be due in said final certificate ($17,572.45) on the execution of a receipt and release in full of all claims and demands.

Mr. Smyth, seconded by Mr. Mallette, moved that the report be adopted, and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Carter, Eckhart, Kelly, Mallette, Smyth and Wenter—seven. Nays—none.

Excused and not voting—Mr. Jones—one.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, June 14, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Your Committee on Engineering presents herewith the final certificate of the Chief Engineer of the District for seventeen thousand five hundred and seventy-two dollars and forty-five cents ($17,572.45) in favor of the Carnegie Steel Company, Limited, for the work done by said company, covered by its contract dated January 13, 1898, for the superstructure of the bridge of the Atchison, Topeka and Santa Fe Railway Company, across the Main Channel on contract Section "N," and reports that the Committee has examined said certificate and considered the subject matter of the work done under said contract, and recommends as follows:

That the President and Clerk of the District be authorized and directed to pay, on the voucher of the Chief Engineer, the sum found to be due in said final certificate attached, to wit: The sum of seventeen thousand five hundred and seventy-two dollars and forty-five cents ($17,572.45), when said company shall have filed with the District a receipt and release in full of all claims and demands whatsoever arising in any manner under said contract.

Respectfully submitted,

(Signed) THOMAS A. SMYTH,
Chairman.

J. P. MALLETTE,
B. A. ECKHART,
THOMAS KELLY,
FRANK WENTER,
Z. R. CARTER,
WM. BOLDENWECK,
Committee on Engineering."

The following is

THE FINAL CERTIFICATE OF THE CHIEF ENGINEER:

"CHICAGO, June 10, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I hereby certify that the Carnegie Steel Co., Ltd., has completed all of the work covered by its contract dated January 13, 1898, for the superstructure of the bridge of the A., T. & S. F. Ry. Co. across the Main Channel on Contract Section "N," to the full satisfaction of the Chief Engineer, and in accordance with the terms of the said contract with this District. This certificate is given subject to any unaccrued or unmatured obligations imposed by the contract.

The following is a statement covering same:

Contract price for superstructure complete	$44,242 00
Less 11,600 lbs. material at 2.68c	310 88
Net amount of contract	$43,931 12

Less amount paid on previous estimate..... 26,358 67

Amount due and unpaid..$17,572 45

Respectfully submitted,

(Signed) ISHAM RANDOLPH,
Chief Engineer."

PAYMENT OF INDEMNITY TO A., T. & S. F. R. R. CO. FOR REPAIRS AND MAINTENANCE OF BRIDGE, ETC.

The Clerk presented a report from the Chief Engineer, transmitting joint certificate of the Chief Engineer of the Sanitary District and the Chief Engineer of the A., T. & S. F. R. R. Co., in Chicago, under the provisions of the agreement with the companies comprising the Santa Fe system, dated May 25, 1896, and also the supplemental agreement of October 12, 1898, as to the amount of indemnity to be paid for ordinary maintenance and repairs of the A., T. & S. F. Bridge across Main Channel, at west end of Section N, as provided in Section 2 of Article 1 of said first mentioned contract, the amount due being fixed at $28,748.60.

Mr. Carter, seconded by Mr. Jones, moved that the report be received, and that the President and Clerk be authorized and directed to pay to the A., T. & S. F. R. R. Co., in Chicago, the sum of $28,748.60, in full for said indemnity, when said company shall have executed a proper receipt therefor.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—eight. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, June 14, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I herewith transmit joint certificate of the Chief Engineer of the *A., T. & S. F. Ry. Co., in Chicago, and the Chief Engineer of this District, covering the capitalization account of the railway bridge, on the Twenty-sixth Street line of the Santa Fe Railway, said capitalization being for that bridge as a fixed structure.

Respectfully submitted,

(Signed.) ISHAM RANDOLPH,
Chief Engineer."

The following is

THE JOINT CERTIFICATE OF THE CHIEF ENGINEERS:

"Acting under the provisions of Article 1 of the contract entered into on the 25th day of May, 1896, by and between the Sanitary District of Chicago and the *Atchison, Topeka and Santa Fe Railway Company, in Chicago; the Chicago, Santa Fe and California Railway Company, and the Atchison, Topeka and Santa Fe Railway Company; and also, in compliance with the supplemental agreement entered into on the 12th day of October, 1898, by and between the parties hereinbefore named, we, the undersigned Chief Engineers, respectively, of the Sanitary District of Chicago and the above recited railroad corporations, hereby certify that we have verified the weights, quantities and values of the materials falling under the provisions of Sections 15 and 16 of Article 1 of the aforesaid contract of May 25, 1896, and have made the computations based thereon, for the purpose of determining the sum to be paid the railway company by the Sanitary District for the ordinary maintenance and repairs of the bridge structure designated in Section 2 of Article 1 of said contract (crossing the Main Channel of the Sanitary District on the west end of contract Section "N"), and for the general depreciation and wearing out thereof, and for assuming all liability of accident to the same, figured on the basis of the use of said bridge as a fixed structure; and we find the sum to be so paid to amount to twenty eight thousand seven hundred and forty eight and sixty one-hundredths ($28,748.60) dollars, as shown in detail in the statement hereto attached.

(Signed) ISHAM RANDOLPH,
Chief Engineer Sanitary District of Chicago.

JAMES DUN,
**Chief Engineer Atchison, Topeka and Santa Fe Railway Company in Chicago.*"

June 8, 1899.

ORDER IN REFERENCE TO LA GRANGE AND KAMPSVILLE DAMS.

Under the head of new business Mr.

**Note—The name of the company referred to herein is given in the original agreement of May 25, 1896, as "The Atchison, Topeka and Santa Fe RAILROAD Co. in Chicago." See Proceedings, page 3360.*

Jones presented and, seconded by Mr. Eckhart, moved the adoption of the following

ORDER:

"WHEREAS, The law under which was organized the Sanitary District of Chicago provides for the removal of the State dams at Henry and Copperas Creek by this Board before the opening of the main drainage channel; and,

WHEREAS, Many of the inhabitants of the Illinois River Valley are representing that it is equally important that the federal dams of La Grange and Kampsville should be likewise removed by or through the consent of the national government before, or at the earliest practical date after, the opening of the main drainage channel; therefore be it

Ordered, That the Joint Committee on Federal Relations and Engineering be directed carefully to investigate from all data available and to be obtained, the necessity of the removal of the federal dams at these points and to report to this body whether the interests of the Sanitary District and the welfare of the people of the Illinois Valley justify the co-operation of the Board of Trustees of the Sanitary District of Chicago with the inhabitants of the Illinois Valley in petitioning the federal government for the removal of the La Grange and Kampsville dams."

The motion prevailed unanimously and the President declared the order adopted.

COMMUNICATION FROM LEMONT IMPROVEMENT ASSOCIATION.

The Clerk presented and read a communication from A. D. Brown, president of the Lemont Improvement Association, in reference to the purchase or lease from the District by said association of certain grounds for industrial purposes, which by unanimous consent was referred to the Committee on Engineering on motion of Mr. Mallette, seconded by Mr. Wenter.

ADJOURNMENT.

On motion of Mr. Carter, seconded by Mr. Kelly, the Board then adjourned.

Joseph F. Haas

Clerk.

PROCEEDINGS

—OF THE—

BOARD OF TRUSTEES

—OF THE—

SANITARY DISTRICT OF CHICAGO.

JUNE 21, 1899.

OFFICIAL RECORD.

Published by authority of the Board of Trustees of the Sanitary District of Chicago.

REGULAR MEETING.

The four hundred and forty-third regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Wednesday, June 21, 1899, at 2 o'clock P. M.

On roll-call Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Smyth and Wenter—eight members, were present.

President Boldenweck then called the Board to order.

MINUTES.

The minutes of the regular meeting held June 14, 1899, were approved as printed on motion of Mr. Kelly, seconded by Mr. Eckhart.

VOUCHERS.

The Clerk presented the following vouchers:

*ENGINEERING DEPARTMENT.

Isham Randolph (traveling and expense)		$ 202 64

GENERAL ACCOUNT.

Carl Sexton (streams examination account)	$ 3 15	
W. Helmuth (streams examination account)	5 00	
Adams Express Company (streams examination account)	5 20	
D. B. Bisbee (streams examination account)	8 06	

Harry Hudson (stream examination account)	$ 10 15	
Arthur R. Reynolds (streams examination account)	17 31	
Bausch & Lomb Optical Company (streams examination account)	18 75	
United States Express Company (streams examination account)	19 30	
Frank Diesel Can Company (streams examination account)	28 38	
Wm. J. Bohm (streams examination account)	42 50	
*Cameron, Amberg & Co. (streams examination account)	91 55	
*Chicago Car Seal and Manufacturing Company (streams examination account)	94 00	
*Max Wehrmann (streams examination account)	107 00	
*Whitall, Tatum & Co. (streams examination account)	112 15	
*Arthur W. Palmer (streams examination account)	350 00	
*Edwin O. Jordan (streams examination account)	378 15	
*Richards & Co., Limited (streams examination account)	541 60	
*Isham Randolph (traveling)	60 00	
		$ 1,892 25

*CONSTRUCTION ACCOUNT.

Gahan & Byrne (Section H, June 16, 1899)	$1,030 08	
Halvorson, Richards & Co. (Section F—Summit Bridge)	655 83	
Hayes Bros. et al. (Section N—Kedzie Avenue Bridge)	956 56	
The Scherzer Rolling Lift Bridge Co. (Section O—P. H. Bridge)	2,450 00	
The Marsh & Bingham Company (Section K—Belt Railway Bridge)	528 00	
The Marsh & Bingham Company (Section O—pumping plant)	129 78	
Chicago Crushed Stone Company (Section O—S. W. Blvd. Bridge)	480 00	
Chicago Crushed Stone Company (Section O—S. W. Blvd. Bridge)	479 20	
Chicago Crushed Stone Company (Section O—S. W. Blvd. Bridge)	487 84	
The P., C., C. & St. L. Ry. Co. (Section O—P. H. Bridge)	41 80	
The A., T. & S. F. Ry. Co. (Section 12, Romeo road)	35 84	
Illinois Central Railroad Company, lessee (Section O—P. H. Bridge)	4 61	
Isham Randolph (Section O—Kedzie Avenue Bridge)	23 50	
Isham Randolph (Section F—Summit Bridge)	30 00	
C. T. T. R. R. Co. (Chicago River Bridge)	10,297 37	
		$17,630 41
Grand total		$19,725 30

*To be paid by warrants, with interest coupons attached, drawn against the Tax Levy for 1899.

Mr. Carter, seconded by Mr. Wenter, moved that the vouchers as read and shown above be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Boldenweck Braden, Carter, Eckhart, Jones, Kelly, Smyth and Wenter—eight. Nays—none.

Upon this result the President declared the motion carried.

REQUISITION.

The Clerk presented the following requisition:

No. 962, Police Department (sundry supplies) ..... $ 70 00

Mr. Kelly, seconded by Mr. Jones, moved that requisition No. 962, as read and shown above, be allowed.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Smyth and Wenter—eight. Nays—none.

WEEKLY REPORT ON EMPLOYES.

The Clerk presented a report, in accordance with the Rules, showing the number of persons in the employ of the District for the week ending June 17, 1899, which was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, June 21, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I beg leave to report

herewith the number of employes in each department for the week ending June 17, 1899, as the same have been reported to me:

Engineering department	81
Maintenance account	9
Clerical department	5
Law department	8
Treasury department	1
Police department	29
General	3
Total employes	136

Respectfully submitted,

(Signed) JOSEPH F. HAAS,
Clerk.

MONTHLY REPORT FROM LAW DEPARTMENT.

The Clerk presented a report from the Law Department for the month of May, 1899, which, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT.

"CHICAGO, June 20, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I herewith submit the report of the Law Department for the month of May, 1899:

The following are the expenses and disbursements:

SALARIES.

Attorneys	$ 2,733 35	
Office force	800 00	
		$ 3,533 35

GENERAL EXPENSES.

Court costs	$ 527 15	
Expense account	929 57	
Legal services	1,733 34	
Right of way	250 00	
Books, printing and stationery	126 50	
		$ 3,566 56

LAND ACCOUNT.

Will County taxes	15 41
Total	$ 7,115 32

The following cases have been begun during the month:

The Sanitary District of Chicago vs. the Northern Trust Company, Ovid B. Johnson, et al., Gen. No. 17643, in the Circuit Court of Will County. Petition for condemnation.

The Belt Railway Company of Chicago vs. the Sanitary District of Chicago, et al., Gen. No. 199,046, in the Superior Court of Cook County. This is a bill for an injunction to restrain the Sanitary District of Chicago, its agents and employes, from interfering with the railway company while removing earth from the spoil bank adjacent to the Main Channel. A temporary writ of injunction was granted and served on the defendant and a motion to dissolve this injunction was filed on behalf of the Sanitary District and set for an early hearing; but, in compliance with the instructions of the Committee, was continued indefinitely or until the railway company attempts to remove more than one hundred and fifty thousand (150,000) cubic yards of earth.

The following suits have been disposed of during the month:

In the case of the Sanitary District of Chicago vs. Chester S. Allen et al., Gen. No. 17621, in the Circuit Court of Will County, a writ of injunction was granted restraining the defendants from taking possession of certain property belonging to the defendant. The bill was subsequently dismissed on motion of the complainant, the real estate in question having been acquired by the Sanitary District.

The case of the Sanitary District of Chicago vs. Chester S. Allen, Gen. No. 17618, in the Circuit Court of Will County, has been dismissed without costs on motion of the petitioner.

The case of Anton Markievicz vs. the Sanitary District of Chicago and Mason, Hoge, King & Co., Gen. No. 164,067, in the Circuit Court of Cook County, on motion of the defendant, was dismissed at plaintiff's costs and judgment.

The following proceedings were had in the cases pending in the several courts:

In the case of the Sanitary District of Chicago vs. Henry J. Burke, Gen. No. 8543, in the Appellate Court for the First District of Illinois, abstracts and briefs have been prepared by this department and filed with the Clerk of the Court.

In the case of the Sanitary District of Chicago, appellant, vs. Olaf Hero, appellee, Gen. No. 8542, in the Appellate Court for the First District of Illinois,

abstracts and briefs have been prepared by this department and filed with the Clerk of the Court.

In the case of the Sanitary District of Chicago, appellant, vs. Bridget McGuirl, appellee, Gen. No. 8469, in the Appellate Court for the First District of Illinois, a motion to dismiss the appeal has been argued and overruled, and abstracts and briefs have been filed on behalf of the Sanitary District.

A power of attorney was prepared by this department authorizing the Kelly-Atkinson Company to act as agent for the Toledo Bridge Company and to accept the payment of the reserve percentage on the Chicago, Madison and Northern Railroad Bridge, amounting to two thousand dollars ($2,000.00).

In addition to the above, routine business of the office has occupied the time of the Department.

Respectfully submitted,

(Signed.) CHARLES C. GILBERT,

Attorney."

REPORT IN REFERENCE TO FORFEITURE ON CONTRACT FOR SUPERSTRUCTURE OF A., T. & S. F. BRIDGE ACROSS MAIN CHANNEL ON SECTION 8.

The Clerk presented a report from the Chief Engineer fixing the amount of forfeiture at $19,000 on the contract with the Carnegie Steel Company, Limited, for the superstructure of the A., T. & S. F. Bridge across the Main Channel on Section 8, alleged to have been incurred by reason of the delay in completing said work beyond the time provided in said contract.

By unanimous consent the report was referred to the Committee on Engineering.

REPORT IN REFERENCE TO AGREEMENT WITH AMERICAN STEEL AND WIRE COMPANY.

Mr. Smyth, Chairman, presented, and the Clerk read, a report from the Committee on Engineering in reference to, and accompanied by, an agreement between the District and the American Steel and Wire Company, providing that said American Steel and Wire Company shall deliver to the District a quit-claim deed of all its interest in certain lands in the School Section Addition to Joliet, and that the District in certain contingencies shall furnish said company with certain power, by electricity or otherwise, as set forth in the agreement, the report recommending that the President and Clerk of the District be authorized to execute the said agreement on behalf of the District.

Mr. Smyth, seconded by Mr. Jones, moved that the report be received and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Smyth and Wenter—eight. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, June 19, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—We herewith submit a draft of a proposed agreement between the American Steel and Wire Company, of New Jersey, and the District. The proposed draft has been approved by the Attorney, and, after having given the matter careful consideration, we recommend that the President and Clerk of the District be authorized to execute the agreement upon behalf of the District.

Respectfully submitted,

(Signed) THOMAS A. SMYTH,

Chairman.

Z. R. CARTER,

J. C. BRADEN,

B. A. ECKHART,

THOMAS KELLY,

FRANK WENTER,

ALEX. J. JONES,

WM. BOLDENWECK,

Committee on Engineering."

(Accompanied by agreement.)

The following is

THE AGREEMENT:

"*Articles of Agreement*, Made and entered into this 24th day of May, A. D. 1899, by and between The Sanitary District of Chicago, a municipal corporation duly organized and existing under and by virtue of the laws of the State of Illinois, party of the first part, and the American Steel and Wire Company, a corporation duly organized and existing

under the laws of the State of New Jersey, party of the second part;

Witnesseth, That whereas there is now pending in the Circuit Court of Will County a certain suit or proceeding for the condemnation of certain property situated and being in Section sixteen (16), Township thirty-five (35) North, Range ten (10) East of the Third Principal Meridian, said suit referred to being entitled, "The Sanitary District of Chicago vs. Alanson Sweet et al.," being General Number 17432, and the said land last hereinabove referred to is particularly described in detail in an amended petition filed by the party of the first part in said court December 31, 1898, and also in a certain other amendment to the amended petition filed in said court May 19th, 1899; and,

WHEREAS, The said American Steel and Wire Company, party of the second part hereto, is the owner of all that part of Lot one (1), Block sixty-three (63); Lot four (4), Block sixty-three (63); Lot five (5), Block sixty-three (63); and Lot two (2), Block seventy-four (74), School Section Addition to the City of Joliet, in the County of Will and State of Illinois, which lies east of the tow-path of the Illinois and Michigan Canal; and,

WHEREAS, The Northwestern Tile Company, by virtue of a lease dated September 11th, A. D. 1883, leased from the Canal Commissioners of the Illinois and Michigan Canal one hundred and three and sixty one-hundredths (103 60) horse power, being five thousand two hundred and eighty-six (5,286) cubic feet of water to be drawn from the said Illinois and Michigan Canal, with an estimated fall of thirteen (13) feet, the said water so leased to be taken out of the canal on the tow-path side thereof, opposite Lot eight (8), in Block sixty-three (63), School Section Addition to Joliet, said lease being for a term of ten years from and after the date thereof, and the said Northwestern Tile Company, by the terms of said lease, agreed to pay to the said Canal Commissioners a yearly rental of the sum of five hundred thirty-one and fifteen one-hundredths ($531.15) dollars for the use of said water; and,

WHEREAS, There is located at the point aforesaid a certain head race and tail race and appliances for utilizing the said water power, including a turbine wheel, and the necessary gearing and machinery to transmit said power to the line shafting of a certain mill and factory, for the purpose of operating the machinery therein; and,

WHEREAS, The Consolidated Barb Wire Company, a corporation of the State of Kansas, by purchase acquired all the right, title and interest of the said Northwestern Tile Company in and to said lease and water power; and,

WHEREAS, Thereafter the said American Steel and Wire Company, party of the second part hereto, acquired by purchase all the right, title, claim and interest of the said Consolidated Barb Wire Company in and to said water power and its appurtenances, and the said last named corporation is now using the same, and said lease is continued in force by virtue of a resolution of the Board of Canal Commissioners of date July 1st, 1897, pending negotiations for a new lease; and,

WHEREAS, Also, in a certain suit then pending in chancery in the Circuit Court of Will County and State of Illinois, entitled "The Canal Commissioners vs. The Sanitary District of Chicago," there was entered of a record a decree in said cause, which among other things contained the following provisions:

"Thirteenth—And the Court further finds, by agreement and consent of the parties hereto, that in case the Sanitary District of Chicago, or any person acting under and by its authority or consent, should hereafter erect any dam or dams upon property and lands now or hereafter owned or controlled by said Sanitary District and across the Desplaines River at any point where such dam or dams, or the pool formed thereby, would injure or destroy any of the water power rights then existing, the property of the State of Illinois, upon the Channahon level of the said canal, that then and in that case said Sanitary District shall, at its own cost and expense, transmit to and install, ready for use at the point or points where such then existing water power rights on the Channahon level may be injured or destroyed by said dam, an amount of actual horse power not exceeding 500 horse power, which shall equal in units of actual horse power that of the power which may be destroyed or injured by the construction of such dam."

AND WHEREAS, The quantity of water which the party of the first part is authorized by the act of the Legislature under which it is organized, and also by the provisions of said decree is recognized and agreed to, will diminish the head or fall at said water power, opposite Lot eight (8) aforesaid, and said decree makes provision for maintaining the

efficiency of said power by discharging into said Illinois and Michigan Canal at Dam Number one (1) a sufficient quantity of water in excess of the present discharge to compensate for said loss of head or fall.

Now, therefore, in consideration of the said American Steel and Wire Company executing and delivering to the said Sanitary District of Chicago a quit-claim deed of all its interest in that part of Lots one, four and five (1, 4 and 5) in Block sixty-three (63), and Lot two (2) in Block seventy-four (74), School Section Addition to Joliet, that lies east of the tow path of the Illinois and Michigan Canal, the said party of the first part covenants and agrees with the said party of the second part to permit it to usé said parts of Lots one, four and five (1, 4 and 5) in Block sixty-three (63), and Lot two (2) in Block seventy-four (74), School Section Addition to Joliet, so lying east of the said tow path of the Illinois and Michigan Canal during and until such time as said water power is rendered useless or destroyed by the construction of a dam south of the point where said water power now is, and that during the existence of such water power at said point, the said party of the first part will comply with the provisions of said decree, by discharging the quantity of water into said canal provided for in said decree, and that said party of the first part further covenants and agrees with said party of the second part that should said dam be constructed, as provided in said decree in the said case of the said Canal Commissioners vs. Sanitary District of Chicago, that then the party of the first part will transmit by electricity, or such other method as will be effective, an equal amount of power in units of horse power, to the point where the said water power is now installed, as will equal the efficiency of the present water power plant at said point, should the said party of the second part be then a lessee of the Canal Commissioners of water power at the point above indicated; and the said Canal Commissioners then consent to have said power so transmitted to said point, and the said party of the first part will continue to so transmit and furnish power at such point or place so long as directed by the said Canal Commissioners so to do, and the said party of the second part has by lease or otherwise the right to the use of said water power from the said Canal Commissioners; the total amount of power to be furnished said Channahon level in no event to exceed the number of horse power specified in said decree.

It is further covenanted and agreed by and between the parties to this contract, that the said party of the first part will, in addition thereto, furnish a motor or suitable appliances, so as to transmit said power so furnished after the destruction of the existing plant to the line shafting of the said party of the second part, exclusive of belting, it being understood that the said motor or other mechanical contrivance to which said power is to be transmitted and conducted is to be equipped with a pulley so as to render the power so furnished effective. Said motor to be of sufficient capacity and rate of power as to fully utilize the power so transmitted from the dam of the said party of the first part. But thereafter said party of the first part shall not be required to replace said motor or other contrivance or keep the same in repair.

It is further covenanted and agreed that all the covenants, rights, duties and obligations of the respective parties to this agreement shall extend to and be binding upon the grantees, assignees and successors of the respective parties.

In Witness Whereof, the said Sanitary District of Chicago has caused this agreement to be executed by its President and Clerk, under the corporate seal of said corporation, and the said party of the second part in like manner has caused this contract to be executed by its President and Secretary and the corporate seal of said corporation. This agreement being by each of the parties thereto executed in triplicate.

Sanitary District of Chicago.

By .....

President.

Attest:

.....

Clerk.

American Steel and Wire Company of New Jersey.

By JNO. LAMBERT,

President.

Attest:

C. S. ROBERTS,

[SEAL.] *Secretary.*"

REPORT IN REFERENCE TO DEVELOPMENT AND UTILIZATION OF WATER POWER

Mr. Smyth, Chairman, presented, and

the Clerk read, a report from the Committee on Engineering with reference to, and accompanied by, an order directing that the President and Clerk be authorized, under the direction of the Committee on Engineering, immediately to advertise for bids for the development of water power incident to and susceptible of development along the Main Drainage Channel and its auxiliary channels or outlets.

Mr. Smyth, seconded by Mr. Braden, moved that the report be adopted, and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Smyth and Wenter—eight. Nays—none.

Upon this result the President declared the motion carried.

Mr. Smyth, seconded by Mr. Jones, then moved that the accompanying order be adopted.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Smyth and Wenter—eight. Nays—none.

Upon this result the President declared the motion carried.

Before voting on the adoption of the report, Mr. Eckhart made the following explanation, which he desired to have recorded in the Proceedings: "I desire to explain my vote. I am, as you all know, opposed to leasing water power to any private corporation; but if it is the policy to lease it, I believe it ought to be given the widest publicity possible. It ought to be advertised at least for sixty days, if it is to be advertised, and for the purposes of giving it the widest publicity I shall vote to advertise. I vote aye."

In explanation of his vote in favor of the adoption of the report Mr. Jones made the following statement which, at his request and by unanimous consent, was ordered to be recorded in the proceedings:

"Mr. President, I vote for this report for the express reason that it recommends a form of advertisement which specifically invites bids from 'public corporations or municipalities' that may desire to consider the benefits of this water power, as well as inviting bids from private parties and quasi-public corporations. Personally, I am of the opinion that under the present laws and constitutional limitations it is absolutely impossible for the City of Chicago to make a legal bid for the development of this water power, but since some of our daily papers, after an immature and hasty consideration of the question, have advocated the submission of a proposal by the City of Chicago, I am anxious that the amplest opportunity should be afforded for the determination of the City's legal and financial condition to make a bid for the development and lease of the water power."

The following is:

THE REPORT:

"CHICAGO, June 21, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Your Committee on Engineering respectfully reports that it has had under consideration, from time to time during the past year, the question of the development and utilization of the water-power incidentally created at various points along the Main Drainage Channel and susceptible of immediate development.

Your Committee find that under the present law, even if the Sanitary District had adequate funds at its command, it has not the legal right to construct the power-houses and other electrical plant, additional to the dams and tail-races, which would be necessary to the utilization of this power by leasing it to the consumers along the Channel and within the radius that the same might be economically utilized as a means of power.

It seems wise, therefore, in order that the District may realize the great annual revenue susceptible of being derived from this power, proposals should be invited for the development of the same either by private parties, quasi public or public corporations or municipalities that might desire to consider the benefits of the same. To the end that the highest possible competition may be obtained in the proposed leasing and development of the water-power thus incidentally created, your Committee suggests that public advertisement be made for a period of sixty days inviting proposals for the leasing and development of this power, and respectfully recommend the

adoption of the order herewith submitted.

Respectfully submitted,

THOMAS A. SMYTH,
Chairman.

Z. R. CARTER,
THOMAS KELLY,
J. C. BRADEN,
FRANK WENTER,
WM. BOLDENWECK,
ALEX. J. JONES,
Committee on Engineering."

The following is

THE ORDER:

"*Ordered*, That the President and Clerk be authorized, under the direction of the Committee on Engineering, immediately to advertise for bids for the development and leasing of the water power incident to and susceptible of development along the Main Drainage Channel and its auxiliary channels or outlets, and subject to be controlled and disposed of by the Sanitary District of Chicago."

ADJOURNMENT.

On motion of Mr. Wenter, seconded by Mr. Carter, the Board then adjourned.

Joseph F. Haas
Clerk.

PROCEEDINGS

—OF THE—

BOARD OF TRUSTEES

—OF THE—

SANITARY DISTRICT OF CHICAGO.

JUNE 28, 1899.

OFFICIAL RECORD.

Published by authority of the Board of Trustees of the Sanitary District of Chicago.

REGULAR MEETING.

The four hundred and forty-fourth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Wednesday, June 28, 1899, at 2 o'clock P. M.

On roll-call Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter — nine members, were present.

President Boldenweck then called the Board to order.

VOUCHERS.

The Clerk presented the following vouchers:

PAY ROLLS.

Engineering Department (Chief Engineer's roll, June, 1899)	$ 1,141 67	
Engineering Department (Division of Construction roll, June, 1899)	5,283 63	
Engineering Department (Division of Draughting and Designing roll, June, 1899)	1,846 50	
Engineering Department (Division of Records roll, June, 1899)	682 00	
Engineering Department (Discharge roll, June, 1899)	20 00	
		$ 8,973 80

Clerical Department (Clerk's roll, June, 1899)		$ 1,043 33
Law Department (Attorney's roll, June, 1899)	$ 1,433 32	
Law Department (Joliet roll, June, 1899)	458 33	
		1,891 65
Treasury Department (Treasurer's roll, June, 1899)		166 66
General Account (General roll, June, 1899)	$ 320 00	
General Account (Special roll, June, 1899)	68 00	
General Account (Special roll, June, 1899)	124 50	
General Account (Trustees' roll, June, 1899)	2,333 33	
		2,845 83
Police Department (Marshal's roll, June, 1899)		2,383 32
Maintenance Account (Pumping Plant roll, June, 1899)		675 00
Total		$17,979 59

LAW DEPARTMENT.

John S. Runnells (services General Counsel, June, 1899)		416 66

CONSTRUCTION ACCOUNT.

Halvorson, Richards & Co. (Section E, June 16, 1899)	$ 3,481 56	
Heldmaier & Neu (Section 12, Romeo Highway Bridge)	2,021 21	
McArthur Bros. Company and Winston & Co. (Section N—R. R. embankment)	322 92	
The A., T. & S. F. Ry. Co. (Lemont and No. 5 Bridges over Desplaines River)	28,969 99	
		$34,795 68
Grand total		$53,191 93

* To be paid by warrants, with interest coupons attached, drawn against the Tax Levy for 1899.

Mr. Carter, seconded by Mr. Wenter, moved that the vouchers as read and shown above be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—nine. Nays—none.

Upon this result the President declared the motion carried.

WEEKLY REPORT ON EMPLOYES.

The Clerk presented a report, in accordance with the rules, showing the number of persons in the employ of the District for the week ending June 24, 1899, which was read and by unanimous consent was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, June 28, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the week ending June 24, 1899, as the same have been reported to me:

Engineering department	82
Maintenance account	9
Clerical department	5
Law department	8

Treasury department	1
Police department	28
General	9
Total employes	142

Respectfully submitted,

(Signed) JOSEPH F. HAAS,
Clerk."

MONTHLY REPORT FROM ENGINEERING DEPARTMENT.

The Clerk presented a report from the Engineering Department for the month of May, 1899, which, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, June 23, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I herewith transmit the report of the Engineering Department for the month of May, 1899, giving the detailed operations of the several divisions constituting the same.

The value of the construction work done was $156,167.18, divided as follows: Main Channel, $98,921.84; bridges, $57,245.34. The Engineering expenses were $13,404.88, divided as follows: Salaries, $8,843.07; supplies, etc., $4,561.81. A capitalization voucher for $58,954.50, to the C., M. & N. R. R. Co., was also issued during the month.

DIVISION OF CONSTRUCTION.

The weather during the month was favorable to progress except for a number of heavy rainstorms. Rain was recorded on 10 days, and the temperature varied from 46 degrees to 82 degrees Fahrenheit.

Chicago River Improvement—At Adams Street, 210 cubic yards were excavated for trenches for concrete struts below the grade of the bottom of the channel. The work in the cut at Jackson Street was continued day and night with the exception of Sundays, and the channel and wall excavation was completed to within two feet of the grade of the channel bottom. Two elevator hoists were run on this work to the 23rd of the month and three were run thereafter. Ground was broken south of Jackson Street on the 25th and about 360 cubic yards were taken out of the new cut. On the 3rd, ground was broken south of Van Buren street and about 167 cubic yards of material were taken out.

Pile driving for the temporary roadway south of Jackson Street was begun on the 17th and continued throughout the month. Thirty-five and forty foot piles were driven as far south as the Metropolitan Elevated Railroad Company's water tunnel would permit. Only a small amount of timber for roadway was put in and the sheeting for the sides of the excavation was put in as the work advanced. Some time was devoted to repairs made necessary by the settling of the roadway and ground adjacent, north of Jackson Street. Timber bracing was put in the coffer dam as excavation advanced in the cut north of Jackson Street. Some additional filling and tamping was done in the dam across the head of this section.

At Adams Street concrete was laid for the struts below grade of channel bottom, beginning on the 2nd and finishing on the 18th. Work on the west wall was continued and concrete for same was finished on the 21st. Back-filling the walls at Adams Street has been continued during the month.

The driving of piles to support the Alton Railroad Company's office building was begun on the 5th; carpenter work was begun on the 9th and on the 20th housemovers began work. Piles were driven along the north wall of the building on the 30th and 31st. Beginning on the 9th some time was devoted by carpenters to removing the diagonal and extra bracing along the north wall of the Adams Street section to permit the progress of the wall work.

On the 29th it was reported that the Jackson Street Bridge had been forced over to the eastward by the driving of piles west of center pier, which necessitated the hewing of the timber work at the east abutment to allow the bridge to swing freely.

The average number of men employed by the contractors on this work was about 115 per day, including Sundays. During the month the prices of the various classes of work on the By-pass were readjusted and a supplementary contract entered into.

The dredging of the South Branch was continued and about 56,000 cubic yards

of material were removed by dredge No. 2, which worked 46 shifts of 8 hours each. The dredge worked between stations 58 and 168+50.

The following vouchers were issued on Chicago River Improvement:

Lydon & Drews (reserve percentage)	$10,000 00
Lydon & Drews (Adams Street By-pass)	6,987 38
Lydon & Drews (By-pass)	17,176 04
Lydon & Drews (dredging)	9,324 00
Dolese & Shepard Co. (By-pass)	50 40

Section "O"—The new P., C., C. & S. L. temporary bridges were completed and trains began running on them on the 3rd of the month.

Considerable work was done repairing the C. J. Ry. Co. and the C. T. T. R. R. Co.'s temporary bridges. A. T. Wilcox removed the approach spans to the girder bridge. The removal of the 80-foot girders from the site of the eight-track bridge was continued all the month and nearly completed and are being stored on our right of way near Robey Street.

The following vouchers were issued on these accounts:

The Marsh & Bingham Co.	$ 68 12
Continental Bolt and Iron Works	29 45
Western Union Telegraph Co.	334 66
C. T. T. R. R. Co.	100 00
Geo. M. Huss	392 00

The superstructure of the Southwest Boulevard Bridge was entirely completed on May 11th. Some extra stone cutting was done on the abutments of this bridge during the early part of the month. The macadamizing of the approaches to this bridge was completed on the 15th, and on the same day the bridge was opened to traffic. The removal of the Pontoon bridge was begun on the 29th.

The following vouchers were issued on this account:

The J. G. Wagner Co.	$15,000 00
The J. G. Wagner Co. (final)	2,688 07
Isham Randolph (paid stone-cutters)	116 00

The contractors for the eight-track bridge continued work all the month with a scraper force, depositing the material on both sides of the railroads south of the channel; 3,342 cubic yards of material were vouchered for the month. On the 20th these contractors began pulling piles at the site of the bridge, but after pulling eleven their chain broke, which necessitated the abandonment of the work. At the beginning of the month a steam pump was installed on the east cofferdam and the pit pumped out. The cofferdams proved to be water tight, but the back pressure on the west cofferdam was great enough to force the water over so as to endanger the stability of the new P., C., C. & St. L. temporary trestles. Water was again admitted to the pit and it was thought best to pump out that portion of Section "O" lying west of the Pan Handle tracks. On the 25th the installation of one of the 20-inch discharge pumps from Section 15 was begun.

The following vouchers were issued on this account:

The Scherzer Rolling Lift Bridge Company	$ 612 50
The Scherzer Rolling Lift Bridge Company	1,434 48

Section "N"—Both the shovel and incline and the shovel and train plants worked during the entire month in day shifts only. The total amount vouchered on this account was 28,309 cubic yards, of which 2,670 cubic yards were deposited in the Southwest Boulevard. The excavation of the Kedzie Avenue Temporary Roadway was continued all the month.

The following vouchers were issued on these accounts:

Hayes Bros. et al. (reserve percentage)	$15,000 00
Hayes Bros. et al.	2,563 55
Hayes Bros. et al.	4,223 41

The C., M. & N. R. R. Co.'s Bridge across the Main Channel was entirely completed on May 5th. A break in the south abutment of this bridge was repaired and completed on the 24th.

The following vouchers were issued on this account:

Toledo Bridge Company (final)	$2,000 00
Isham Randolph (paid account repairs)	169 20
Empire Portland Cement Company (repairs)	132 50
Dolese and Shepard Company (repairs)	48 50
Isham Randolph (paid account) repairs)	205 95
Hayes Bros. (repairs)	166 01
Winston & Co. (repairs)	199 90

The vouchers issued on account of the

C., M. & N. R. R. Co.'s Bridge across Kedzie Avenue are as follows:

The Kelly-Atkinson Construction Company (placing of deck and painting).....	$ 315 60
Geo. M. Huss (moving girders)	100 00

A voucher covering the capitalization and maintenance of the C., M. & N. R. R. Co.'s Bridges over the Main Channel and Kedzie Avenue was issued on the 18th, which amounted to $58,954.50.

The following vouchers were issued on account of the Kedzie Avenue Bridge across the Main Channel:

The King Bridge Company (final)	$250 00
Chicago Crushed Stone Company (stone for approaches).....	79 65
Hayes Bros. (repairing sub-grade, etc.).....	84 65

The A., T. & S. F. Ry. Co.'s Bridge across the Main Channel on this section was entirely completed on the 11th, and on the 23rd a final voucher for $17,572.45 was issued to the Carnegie Steel Company, Limited, contractor for the superstructure.

Sections "M and L"—A 20-inch pump from Section 15 was delivered at the east end of Section "M" near the end of the month to be installed for pumping out Sections "M and L."

Section "K"—On the 19th, 20th and 21st, Hayes Bros, had a force of men laying steel on the temporary trestles for the use of the Belt Railway Company. This work was continued by the railroad company from the 26th to the end of the month. A voucher for $449.80 was issued to Hayes Bros. for labor filling approaches to the trestle.

Section "H"—A wheelscraper force excavated the west end of this section during the entire month. The shovel and incline plant worked night and day shifts from the 8th to the 20th. The incline is being moved to the south side of the channel on Section "G." The material vouchered was 18,264 cubic yards glacial drift.

The following vouchers were issued on this account:

Gahan & Byrne (construction of dam).....	$ 683 05
Gahan & Byrne (regular work)	2,320 00
Gahan & Byrne (regular work)	2,976 56

Section "G"—A pump was being installed on this section. The A., T. & S. F. Ry. Co. had a large force during the greater part of the month, surfacing up new track and removing old track.

Section "F"—The work on the superstructure of the Lyons and Summit Road Bridge over the Main Channel was continued during the entire month, the entire iron work being completed on the 31st. The grading of the approaches to this bridge was completed on the 22nd. A final voucher for $3,440.78 was issued on the 16th to McArthur Bros. Co. and Winston & Co., account substructure of this bridge.

Section "E"—Rock excavation was continued by traveling derrick to the 13th, and by Peteler car plant all the month. The latter plant dumped part of the time in the slope wall and part of the time on spoil bank. Laying of revetment wall was continued all the month. The quantities vouchered on this account were as follows: Solid rock, 3,098 cubic yards; revetment wall, 6,793 cubic yards.

Some work was done filling approaches to the Lyons and Summit Road Bridge across the Desplaines River, but was not completed.

On the 18th the work of the substructure for the C. T. T. R. R. Co.'s Bridge over the Desplaines River was taken up again and was abandoned on the 30th on account of high water.

The vouchers issued against this section are as follows:

Halvorson, Richards & Co. (regular work).....	$4,572 27
C. T. T. R. R. Co. (C. T. T. temp. Desplaines Riv.).....	115 84

Section 6—Work of repairing pocket was commenced early in the month and continued daily without interruption. A force of 12 to 18 men was employed and one derrick used. Excavation was completed and the laying of masonry commenced on the 25th. Construction of coffer dam by force account was begun on the 18th and finished on the 21st.

Section 12—The laying of masonry walls for roadway for the Romeo Road Bridge across the Main Channel was continued during the month and 400 cubic yards were vouchered on account of same.

The vouchers issued on account of this bridge are as follows:

Heldmaier & Neu.....	1,618 75
Heldmaier & Neu.....	1,618 75
Heldmaier & Neu.....	295 69

Section 14—The pumping plant was

run uninterruptedly and the greater portion of the time both pumps were in operation. Some minor repairs were made on No. 8 boiler. The elevation of water on May 31st was —28, being 1.8 feet above grade.

Section 15—From the 22nd to the 29th, inclusive, a force varying from 4 to 9 men was engaged in removing engines and pumps preparatory to installing same on Sections "M" and "O." The plant was loaded on flat cars and shipped on the 29th inst.

The regular contract of Christie & Lowe for Bear Trap Dam was completed on the 30th; work was then begun by force account on placing the side shrouds and completing the concrete faces of abutments. Griffiths & McDermott resumed work near the end of the month on the adjustment of gates and operating mechanism and the clearing out of the dam conduit.

The following vouchers were issued on account of this dam:

Christie & Lowe	$231 90
American Bridge Works	63 06

Section 16—An average of 30 to 40 laborers in conjunction with teams, cars and wagons were engaged daily in excavating material from the Tail Race and placing the same in embankment and on the temporary Wire Mills Road and approaches to the Lockport Road Bridge. A voucher for 6,500 cubic yards of material was rendered, which amount was removed in 26 shifts, an average of 250 cubic yards per shift.

The work of assembling iron for the Lockport Road Bridge continued with a traveler in use and a force of 10 bridge men employed. At the end of the month the three bridge spans were in position. Riveting, laying of bridge floor and painting remain to be done under the contract.

Material for the Wire Mills Road Bridge was delivered and is on the ground, but work of erection was not begun during the month.

Section 17—Work on this section was carried on daily and a portion of the time was done at night. The plant used on the section consisted of 1 steam shovel, 2 locomotives, 2 incline hoists, 1 derrick, 7 drills, 1 and 5 yard dump cars and 2 steam pumps.

The quantities vouchered on this account are as follows: Solid rock, 16,700 cubic yards; earth, 25,300 cubic yards; tail race excavation, 1,900 cubic yards; sinking and filling cribbing, 1,000 cubic yards; raising tow-path retaining wall, 300 cubic yards; raising tow-path, 1,300 cubic yards. The money amount vouchered to these contractors is $19,884.37.

Section 18—Work on this section was prosecuted in various places where it could be done to the best advantage and as the urgency of the case demanded. The box drain begun in April was practically completed on the 24th. A voucher was rendered for the following: Excavation, Head I, 6,500 cubic yards; excavation, Head II, 800 cubic yards; levee embankment, 3,300 cubic yards; construction of conduit, 19%; Box Drain, Order XII, 75%; rock, intercepting ditch, 2,050 cubic yards; earth, intercepting ditch, 950 cubic yards; excavation of dam conduit, 1,000 cubic yards; extra concrete for conduit, etc., 150 cubic yards; Illinois and Michigan Canal riprap, 1,000 cubic yards. The money amount vouchered to these contractors is $13,834.62.

DIVISION OF DRAFTING AND DESIGNING

The regular platting was continued on the contour maps between Lockport and Willow Springs, the 50-foot scale maps of the Chicago River and on the atlas of the right of way. Work was also done on maps to be used in constructing the relief map of the Main Channel; a map of the lower Illinois River and plans for a storage building.

The following drawings, etc. were made: A plat of the Allen lots near Lockport; atlas of right of way, Will County, with descriptions; atlas of right of way, Joliet, with descriptions; plan for tile for By-pass; maps for Canal Commissioners; 20-foot scale map for Pan Handle crossing; copy of cross sections, Main Channel and a map showing right of way to be acquired from the E., J. & E. R. R. Co. near Joliet.

Plans for the permanent bridge of C., R. I. & P. R. R. Co. at Joliet were completed; some work was done on the Stephens Street sub-way at Lemont; shop plans for Jefferson and Cass Street bridges at Joliet were checked up and approved, as were also the plans for the Van Buren Street approach. Much time was given to the completing of the Southwest Boulevard Bridge and to the work of the C. T. T. R. R. Co.'s bridge across the Desplaines River.

Detail work has been carried on on the plans for the By-pass, for work along the Chicago River, for the Bear Trap

Dam and for the work through Joliet. The testing of sand and cement for use in construction work was continued, as was also the work of preparing record photographs and the maintenance of water gauges. The hydraulic work was carried on as usual, also the inspection of the Thirty-ninth Street Conduit and all Sanitary District Construction Work.

DIVISION OF RECORDS.

The work of this Division has been carried on in the usual manner.

I estimate the expenses of this Department for the month of June (including capitalization vouchers) will be $235,000.00.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,

Chief Engineer."

VALUES— STATEMENT SHOWING CONDITION OF

Designation.	Amount earned during May, 1899. Main Channel.	Bridges.	General.	Total.	Amount earned to date. Main Channel.	River Diversion.	Bridges.	General.
Chicago River Imp'ment	$36,410 58			$36,410 58	$ 264,411 64			
O	2,339 40	$ 582 23		2,871 63	348,437 27		$ 76,341 54	
N	7,600 84			7,600 84	208,272 36		3,444 78	
M.					158,015 06			
L					217,287 06			
K		449 80		449 80	287,299 54		3,550 02	
I.					289,846 00			
H	5,979 61			5,979 61	296,079 07			
G					387,701 88			
F					341,404 40	$ 75,627 73		
E	5,225 45	115 84		5,341 29	741,407 91	29,091 91	15,259 28	$ 250 00
D					592,039 29	2,880 54		
C					443,342 59	40,135 18		781 [illegible]
B					438,986 42	59,451 34		150 [illegible]
A					801,584 08	115,741 73		
1.					1,210,660 37	143,908 29	1,987 00	30 [illegible]
2.					877,695 00	63,190 86		90 [illegible]
3.					840,952 93	338 42		
4.					975,248 98	83,304 43		85 [illegible]
5.					749,207 28	6,653 64		
6.					686,282 00	55,911 37		
7.					722,544 74	66,193 19		8,738 [illegible]
8.					888,834 43	89,683 90	19,853 80	2,580 [illegible]
9.					794,838 28	23,573 72	1,012 80	
10.					921,454 79	78,729 58		8,992 [illegible]
11.					797,717 50	43,854 42		
12.					837,660 69	21,768 52	1,186 87	
13.					819,388 19			
14					931,457 10			
15.					551,915 85	117 61		
16.	2,535 00			2,535 00	42,364 23		1,500 00	
17.	22,725 00			22,725 00	195,957 71			
18.	15,811 00			15,811 00	86,740 40		1,538 84	
Disposal Wks. at Lockp't	294 96			294 96	247,058 41			
Repairing I. & M. Canal.								18,022 [illegible]
Van Buren St. Approach Span, Chicago River...								
Taylor St. Br. over Chicago River							12,666 66	
C. T. T. R. R. Co.'s Br. over Chicago River....							25,333 34	
S. W. Blvd. Br., over M. C., Sec. O		18,338 07		18,338 07			147,982 56	
Pan Handle Br., over M. C., Sec. O		392 00		392 00			58,737 64	
C.,M. & N. R. R. Co.'s Br., over M. C., Sec. N....		2,922 06		2,922 06			159,629 55	
C.,M. & N. R. R. Co.'s Br., over Kedzie Av., Sec. N		415 60		415 60			14,515 47	
Kedzie Av. Br., over M. C., Sec. N		414 30		414 30			43,095 08	
A., T. & S. F. R. R. Co.'s Br., over M. C., Sec. N.		17,572 45		17,572 45			79,462 06	
Belt Ry. Br. over M. C., Sec. K								
A., T. & S. F. R. R. Co.'s Br., over M. C., Sec. G.							109,110 70	
A., T. & S. F. R. R. Co.'s Br., over D. R., Sec. F.								
Lyons-Summit Road Br., over D. R., Sec. E.....							12,978 77	
Lyons-Summit Road Br., over M. C., Sec. F.....		157 90		157 90			32,692 85	
C. T. T. R. R. Co.'s Br., over M. C., Sec. E.....							50,673 38	
C. T. T. R. R. Co.'s Br., over D. R., Sec. E.....							3,743 10	
Willow Spgs. Highway Br., over M. C., Sec. 1							22,718 52	
A., T. & S. F. R. R. Co.'s Br., over M. C., Sec. 8.							73,365 41	
A., T. & S. F. R. R. Co.'s Br., over D. R., Sec. 8.							26,924 06	
Lemont Highway Br., over M. C., Sec. 8.. ...							20,977 39	
Lemont Highway Br., over D. R., Sec. 8.....							22,329 89	

CONSTRUCTION CONTRACTS, JUNE 1, 1899.

Total.	Amount Paid to Date.	REMAINING TO BE EARNED.			REMAINING TO BE PAID ON VOUCHERS.		
		Main Channel.	Bridges.	Total.	Retained Percentages.	Unpaid Vouchers.	Total.
$ 264,411 64	$ 215,288 22	$167,482 71	.....	$ 167,482 71	$ 15,585 60	$ 33,937 82	$ 49,523 42
419,778 81	418,051 91	37,947 98	.....	37,947 98	292 42	1,434 48	1,726 90
211,717 14	181,697 16	48,721 56	.....	48,721 56	10,796 57	19,223 41	30,019 98
158,015 06	158,015 06	.....	.....	.....	.....	.....	.....
217,287 06	217,287 06	819 32	.....	819 32	.....	.....	.....
290,849 56	290,849 56	7,888 25	.....	7,888 25	.....	.....	.....
289,846 00	289,846 00	.....	.....	.....	.....	.....	.....
296,079 07	293,102 51	22,832 57	.....	22,832 57	.....	2,976 56	2,976 56
387,701 88	387,537 38	11,001 20	.....	11,001 20	164 50	.....	164 50
417,032 13	375,082 08	1,918 34	.....	1,918 34	34,103 38	7,846 75	41,950 13
736,019 10	677,951 25	9,503 45	.....	9,503 45	95,966 29	12,101 56	108,067 85
594,919 83	594,919 83	.....	.....	.....	.....	.....	.....
484,259 40	484,259 40	.....	.....	.....	.....	.....	.....
498,587 76	498,587 76	.....	.....	.....	.....	.....	.....
917,325 81	917,325 81	.....	.....	.....	.....	.....	.....
1,356,585 66	1,349,690 00	.....	.....	.....	6,179 83	715 83	6,895 66
940,975 86	940,975 86	.....	.....	.....	.....	.....	.....
841,291 35	841,291 35	.....	.....	.....	.....	.....	.....
1,058,638 66	1,058,638 66	.....	.....	.....	.....	.....	.....
755,860 92	755,860 92	.....	.....	.....	.....	.....	.....
742,193 37	742,193 37	.....	.....	.....	.....	.....	.....
797,495 93	797,495 93	.....	.....	.....	.....	.....	.....
1,000,952 28	1,000,637 28	9,942 66	.....	9,942 66	315 00	.....	315 00
819,424 30	819,424 30	.....	.....	.....	.....	.....	.....
1,009,136 70	1,009,136 70	.....	.....	.....	.....	.....	.....
841,571 92	841,571 92	.....	.....	.....	.....	.....	.....
860,566 08	860,566 08	.....	.....	.....	.....	.....	.....
819,388 19	819,388 19	.....	.....	.....	.....	.....	.....
931,457 10	931,457 10	.....	.....	.....	.....	.....	.....
552,033 46	552,033 46	.....	.....	.....	.....	.....	.....
43,864 23	36,502 98	23,205 00	.....	23,205 00	5,143 13	2,218 12	7,361 25
195,957 71	152,866 40	101,723 60	.....	101,723 60	23,206 94	19,884 37	43,091 31
83,279 24	63,938 68	298,253 60	.....	298,253 60	10,505 94	13,834 62	24,340 56
247,058 41	235,429 15	6,578 98	.....	6,578 98	11,629 26	.....	11,629 26
18,052 85	18,052 85	.....	.....	.....	.....	.....	.....
.....	.....	.....	$19,495 87	19,495 87	.....	.....	.....
12,666 66	12,666 66	.....	71,040 20	71,040 20	.....	.....	.....
25,333 34	25,333 34	.....	297,384 96	297,384 96	.....	.....	.....
147,932 56	125,549 02	.....	6,252 54	6,252 54	4,228 22	18,155 32	22,383 54
58,737 64	58,737 64	.....	355,670 24	355,670 24	.....	.....	.....
159,629 55	159,223 70	.....	.....	.....	.....	405 85	405 85
14,515 47	14,415 47	.....	.....	.....	.....	100 00	100 00
43,095 08	43,095 08	.....	250 00	250 00	.....	.....	.....
79,462 06	61,889 61	.....	.....	.....	.....	17,572 45	17,572 45
.....	.....	.....	167,292 50	167,292 50	.....	.....	.....
109,110 70	109,110 70	.....	.....	.....	.....	.....	.....
.....	.....	.....	19,321 80	19,321 80	.....	.....	.....
12,978 77	12,830 82	.....	.....	.....	147 95	.....	147 95
32,692 85	32,692 85	.....	5,204 55	5,204 55	.....	.....	.....
50,673 38	50,673 38	.....	.....	.....	.....	.....	.....
3,743 10	3,694 35	.....	14,428 65	14,428 65	48 75	.....	48 75
22,718 52	22,718 52	.....	160 00	160 00	.....	.....	.....
73,365 41	70,988 32	.....	34,563 30	34,563 30	2,377 09	.....	2,377 09
26,924 06	26,574 06	.....	—4,962 03	—4,962 03	350 00	.....	350 00
20,977 39	20,977 39	.....	141 35	141 35	.....	.....	.....
22,329 89	22,329 89	.....	.....	.....	.....	.....	.....

VALUES— STATEMENT SHOWING CONDITION OF

Designation.	Amount earned during May, 1899.				Amount earned to date.			
	Main Channel.	Bridges.	General.	Total.	Main Channel.	River Diversion.	Bridges.	General.
Western Stone Co.'s Br., over D. R., Sec. 10	.....	.....	.....	.....	.....	.....	15,983 63	.....
Romeo Highway Br. over M. C., Sec. 12	.....	$ 3,995 69	.....	$ 3,995 69	.....	.....	$ 18,477 69	.....
Lockport Highway Br. over M. C., Sec. 16	.....	6,572 40	.....	6,572 40	.....	.....	10,222 08	.....
Wire Mills Rd. Br., over M. C., Sec. 16	.....	5,367 00	.....	5,367 00	.....	.....	10,058 28	.....
E., J. & E. R. R. Co.'s Br., N. of Joliet	.....	.....	.....	.....	.....	.....	41,984 62	.....
Cass St. Br. over M. C., Sec. 18	.....	.....	.....	.....	.....	.....	.....	.....
Jefferson St. Br. over M. C., Sec. 18	.....	.....	.....	.....	.....	.....	.....	.....
Crib work at Joliet	.....	.....	.....	.....	.....	.....	.....	$32,140 [illegible]
Totals	$98,921 84	$57,245 34	.....	$156,167 18	$ 18,989,093 45	$1,000,156 38	$1,139,237 25	$71,881 [illegible]

CONSTRUCTION CONTRACTS. JUNE 1, 1899—*Continued.*

Total.	Amount Paid to Date.	REMAINING TO BE EARNED.			REMAINING TO BE PAID ON VOUCHERS.		
		Main Channel.	Bridges.	Total.	Retained Percentages.	Unpaid Vouchers.	Total.
$ 15,983 63	$ 15,983 63	.....	.....	.....	.....	.....	.....
18,477 69	15,717 94	.....	$ 6,232 06	$ 6,232 06	$ 1,141 00	$ 1,618 75	$ 2,759 75
10,222 08	10,222 08	.....	4,254 92	4,254 92	.....	.....	.....
10,058 28	10,058 28	.....	4,703 02	4,703 02	.....	.....	.....
41,984 62	41,984 62	.....	.....	.....	.....	.....	.....
.....	.....	.....	38,265 75	38,265 75	.....	.....	.....
.....	.....	.....	45,627 25	45,627 25	.....	.....	.....
32,140 89	32,140 89	.....	.....	.....	.....	.....	.....
$ 21,200,368 09	$20,826,560 33	$747,819 22	$1,085,326 93	$1,833,146 15	* $222,181 87	$152,025 89	$374,207 76

QUANTITIES— STATEMENT SHOWING CONDITION OF CON

DESIGNATION.	AMOUNT DONE DURING MAY, 1899.				TOTAL DONE TO		
	Main Channel.				*Main Channel.*		
	Glacial Drift. Cu. Yds	Solid Rock. Cu. Yds	Piles & R. W. Cu. Yds	Masonry and Concr't. Cu. Yds.	Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds.	Retaining Wall. Cu. Yds.
Chicago River Improvement	62,000		8,430	812	763,900		
O	3,342				1,638,854		
N	28,309				898,738		
M					728,180		
L					1,102,980		
K					1,149,031		
I					1,159,384		
H	18,264				1,015,278		
G					1,356,614		
F					1,093,047	37,448	
E		3,098			1,906,732	199,666	
D					1,934,890	87,030	
C					1,881,545		
B					1,579,036	15,586	
A					2,560,648	13,312	
1					1,282,267	554,326	68,226
2					724,905	483,750	38,506
3					425,705	760,778	14,039
4					1,096,746	262,428	68,169
5					952,526	378,609	56,059.1
6					683,248	549,355	39,361.7
7					181,721	890,939	6,179.9
8					50,170	1,145,252.1	2,874.9
9					76,692	1,003,769	
10					31,743	1,141,890	
11					44,021	989,711	
12					44,030	998,709	9,282.94
13					33,810	1,033,665	10,836
14					380,165	1,022,796	23,567.8
15					35,324	647,039	44,511.2
16	2,200	4,300			5,200	100,300	
17	27,200	16,700	*300		122,100	195,100	900
18	4,000	6,300			55,300	37,350	
Disposal Works at Lockport						9,538	
Van Buren Street App. Span, Chicago River							
Taylor Street Bridge over Chicago River							
C. T. T. R. R. Co.'s Bridge over Chicago River							
Southwest Boulevard Bridge over Main Channel, Sec. O					9,873.5		
Panhandle Bridge over Main Channel, Sec. O							
C., M. & N. R. R. Co.'s Bridge over Main Channel, Sec. N					17,849		
C., M. & N. R. R. Co.'s Bridge over Kedzie Avenue, Sec. N					2,869		
Kedzie Avenue Bridge over Main Channel, Sec. N					7,101		
A., T. & S. F. R. R. Co.'s Bridge over Main Channel, Sec. N					7,445		
Belt Railway Bridge over Main Channel, Sec. K							
A., T. & S. F. R. R. Co.'s Bridge over Main Channel, Sec. G					85,253		
Lyons-Summit Road Bridge over Desplaines River, Sec. E					5,557		
Lyons-Summit Road Bridge over Main Channel, Sec. F	4			22.2	2,270		
C., T. T. R. R. Co.'s Bridge over Main Channel, Sec. E					4,748.1		
C., T. T. R.R. Co.'s Br. over Desplaines River, Sec. E					600		
Willow Springs Highway Bridge over Main Channel, Sec. 1					2,084		
A., T. & S. F. R. R. Co.'s Bridge over Main Channel, Sec. 8					98,315	1,020	
Lemont Highway Bridge over Main Channel, Sec. 8					2,006	202	
Romeo Highway Bridge over Main Channel, Sec. 12				400		1,330	
Lockport Highway Bridge over Main Channel, Sec. 16						526	

STRUCTION CONTRACTS JUNE 1, 1899.

DATE.				ESTIMATED REMAINING TO BE DONE.				PERCENTAGE COMPLETED.				
River Diversion.		Piles. Lineal Feet.	Masonry and Concr't. Cu. Yds.	*Main Channel.*				Main Channel Excava'n	River Divers'n.	Ret. Wall	Masonry and Concr't	Piles.
Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds.			Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds	Piles & R. W.	Mas'y& Concr't Cu. Yds					
.....	.....	43,930	2,250	108,000	.....	32,788	5,079	88.12	.....	....	30.70	57.26
.....	.....	.....	.....	189,181	.....	.....	.....	89.62	.....	....	.....	.....
.....	.....	.....	.....	216,571	.....	.....	.....	80.58	.....	....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	....	.....	.....
.....	.....	.....	.....	4,159	.....	.....	.....	99.62	.....	...	.....	.....
.....	.....	.....	.....	31,553	.....	.....	.....	97.33	.....	....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	....	.....	.....
.....	.....	.....	.....	78,733	.....	.....	.....	92.80	.....	....	.....	.....
.....	.....	.....	.....	39,290	.....	.....	.....	97.18	.....	....	.....	.....
179,447	.....	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
95,718	.....	.....	.....	12,302	334	.....	.....	99.40	100	....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	....	.....	.....
170,788	.....	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
212,486	.....	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
359,353	.....	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
174,655	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
119,234	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	100	.....	.....
106,808	17,857	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
12,256	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
118,647	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
97,917	43,102	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
57,902	99,399	.....	.....	.....	15,782	.....	.....	98.70	100	100	.....	.....
40,763	16,873	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
30,313	58,276	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
12,699	15,677	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
11,739	7,475	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	100	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	100	.....	.....
619	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
.....	.....	.....	.....	.....	64,700	.....	.....	26.09	.....	....	.....	.....
.....	.....	.....	.....	165,370	133,460	.....	.....	51.49	.....	100	.....	.....
.....	.....	.....	2,507	36,500	104,780	*6,300	450	87.36	.....	00	87.2	.....
.....	.....	.....	11,365.7	.....	567	.....	.....	94.39	.....	....	100	.....
.....	.....	.....	.....	2,800	.....	.....	784	00	.....	....	00	00
.....	.....	.....	.....	1,500	.....	10,840	1,041	00	.....	....	00	00
.....	.....	.....	.....	12,000	.....	44,840	8,040	00	.....	....	00	00
.....	.....	10,813	4,421.94	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	.....	.....	23,000	.....	29,600	14,360	00	.....	....	00	00
.....	.....	5,948	4,236.77	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	.....	595.69	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	.....	2,886.84	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	4,544	2,489.36	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	.....	.....	8,100	.....	7,070	3,795	100	.....	....	00	00
.....	.....	5,748	2,929.03	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	.....	793.3	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	1,501	2,087.2	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	1,166.5	2,162.79	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	.....	.....	372	.....	1,000	652	61.73	.....	....	00	00
.....	.....	400	598.6	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	.....	817.07	29,785	.....	.....	.....	98.97	.....	....	100	.....
.....	.....	.....	433.36	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	.....	908	.....	.....	.....	174	100	.....	....	83.91	.....
.....	.....	.....	449.45	.....	.....	.....	.....	100	.....	....	90.85	.....

QUANTITIES— STATEMENT SHOWING CONDITION OF CON

DESIGNATION.	AMOUNT DONE DURING MAY, 1899.				TOTAL DONE TO		
	Main Channel.				*Main Channel.*		
	Glacial Drift. Cu. Yds	Solid Rock. Cu. Yds	Piles & R. W. Cu. Yds	Masonry and Concr't. Cu. Yds.	Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds.	Retaining Wall. Cu. Yds.
Wire Mills Road Bridge over Main Channel, Sec. 16	.....	.....	.....	.....	.....	608	.....
E., J. & E. R. R. Co.'s Bridge, north of Joliet	.....	.....	.....	.....	.....	.....	.....
Cass Street Bridge over Main Channel, Sec. 18	.....	.....	.....	.....	.....	.....	.....
Jefferson Street Bridge, over Main Channel, Sec. 18	.....	.....	.....	.....	.....	.....	.....
Totals	145,319	30,398	8,430	1,234.2	27,226,500.6	12,562,027.1	373,749.54

*6,300—Retaining Wall.

STRUCTION CONTRACTS JUNE 1, 1899—*Continued.*

DATE.				ESTIMATED REMAINING TO BE DONE.				PERCENTAGE COMPLETED.				
River Diversion.		Piles. Lineal Feet.	Masonry and Concr't. Cu. Yds.	*Main Channel.*				Main Channel Excava'n	River Divers'n.	Ret. Wall	Masonry and Concr't	Piles.
Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds.			Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds	Piles & R. W.	Mas'y& Concr't Cu. Yds					
.....	.....	.....	566.57	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	.....	1,041.84	.....	.....	.....	.....	.....	.....	....	100	.....
.....	.....	.....	.....	2,850	52	.....	696	00	.....	....	00	.....
.....	.....	.....	.....	3,000	104	.....	1,242	00	.....	....	00	.....
1,801,339	258,659	74,050.5	43,490.51	960,066	319,779	126,188	36,318	97.06	100	98.34	54.5	36.99

SANITARY DISTRICT OF CHICAGO—ENGINEERING DEPARTMENT.

CLASSIFIED STATEMENT OF EXPENDITURES DURING THE MONTH OF MAY, 1899.

Classification.	Engineering Expenses.			Construction.	Capitalization.
	Salaries.	Supplies, Etc.	Total.		
Maps and Plans for General Use of Sanitary District	$ 427 40	$ 63 56	$ 490 96	.....	.....
Chicago River Survey	39 85	.....	39 85	.....	.....
Chicago River Improvement	1,363 80	194 63	1,558 43	$43,137 83	.....
Right of Way	158 65	14 25	172 90	.....	.....
Flood Measurements	46 66	20 18	66 84	.....	.....
Disposal Works and Joliet Project	2,264 71	444 81	2,709 52	36,232 07	.....
Regular Construction—Main Channel	1,533 79	113 98	1,647 77	34,385 82	.....
Wire Mills Road Permanent Bridge over Main Channel, Sec. 16	51 67	19 82	71 49	5,367 00	.....
Lockport Road Permanent Bridge over Main Channel, Sec 16	62 50	19 82	82 32	6,572 40	.....
Romeo Road Permanent Bridge over Main Channel, Sec. 12	278 43	5 94	284 37	3,533 19	.....
Lemont Road Permanent Bridge over Main Channnel, Sec. 8	20 00	.....	20 00	.....	.....
A., T. & S. Fe Ry. Co.'s Permanent Bridge and track deviation over Main Channel, Sec. 8	107 58	1,178 21	1,285 79	.....	.....
Willow Springs Road Permanent Bridge over Main Channel, Sec. 1	20 00	69	20 69	.....	.....
C. T. T. R. R. Co.'s Permanent Bridge over Main Channel, Sec. E	.....	5 00	5 00	.....	.....
C. T. T. R. R. Co.'s Temporary Bridge over Desplaines River, Sec. E	40 00	1 00	41 00	115 84	.....
C. T. T. R. R. Co.'s Permanent Bridge over Desplaines River, Sec. E	40 00	5 50	45 50	.....	.....
Lyons-Summit Road Permanent Bridge over Main Channel, Sec. F.	90 00	144 51	234 51	2,440 78	.....
Lyons-Summit Road Permanent Bridge over Desplaines River, Sec. E	30 00	3 00	33 00	.....	.....
A., T. & S. Fe Ry. Co.'s Permanent Bridge over Main Channel and track deviation, Sec. G	60 00	3 05	63 05	.....	.....
C. & W. I. Belt Ry's Temporary Bridge over Main Channel, Sec. K	80 00	4 00	84 00	449 80	.....
C. & W. I. Belt Ry's Permanent Bridge over Main Channel, Sec. K	100 00	309 00	409 00	.....	.....
Pumping Plant, Sec. M	20 00	29 25	49 25	.....	.....
A., T. & S. Fe Ry. Co.'s Permanent Bridge and track deviation over Main Channel, Sec. N	100 00	10 05	110 05	17,572 45	.....
Kedzie Avenue Permanent Bridge over Main Channel, Sec. N	.....	22 04	22 04	414 80	.....

C., M. & N. R. R. Co. 's Permanent bridge over M. C. and Kedzie Av. viaduct, Sec. N	200 00	40 13	240 13	3,337 66	$58,954 50
Western Avenue Temporary Bridges over Main Channel, Sec. O	15 00	.....	15 00	.....	.....
Southwest Boulevard Bridge over Main Channel, Sec. O	162 00	67 35	229 35	18,271 32	.....
Pan Handle R. R. Co.'s Temporary Bridge over Main Channel, Sec. O	96 45	2 57	99 02	532 23	.....
Pan Handle R. R. Co.'s Permanent Bridge over Main Channel, Sec. O	312 00	313 74	625 74	392 00	.....
Pumping Plant, Sec. O	40 00	29 25	69 25	.....	.....
Taylor Street Temporary Bridge over Chicago River	20 02	.....	20 02	.....	.....
Taylor Street Permanent Bridge over Chicago River	47 08	65 00	112 08	.....	.....
C. T. T. R. R. Co.'s Temporary Bridge over Chicago River	95 02	.....	95 02	.....	.....
C. T. T. R. R. Co.'s Permanent Bridge over Chicago River	47 09	69 55	116 64	.....	.....
Jefferson Street Temporary Bridge, Sec. 18	.....	48	48	.....	.....
Jefferson Street Permanent Bridge, Sec. 18	48 00	3 72	51 72	.....	.....
Cass Street Permanent Bridge, Sec. 18	20 00	3 00	23 00	.....	.....
C., R. I. & P. R. R. Co.'s Permanent Bridge, Sec. 18	137 00	58 16	195 16	.....	.....
Mortar, Sand and Cement Tests	487 02	20 00	507 02	.....	.....
Erosion Tests	.....	1,253 55	1,253 55	.....	.....
Photographs of Works	125 00	23 02	148 02	.....	.....
State Inspection of Canal	56 35	.....	56 35	.....	.....
Totals	$8,843 07	$4,561 81	13,404 88	$ 172,754 68	$58,594 50

PURCHASE OF LAND FROM E., J. & E. RY. CO.

Mr. Carter, Chairman, presented, and the Clerk read, a report from the Joint Committee on Finance and Engineering, setting forth that an agreement has been reached for the purchase of certain lands as described in the report and recommending that the Clerk of the District be authorized and directed to pay on the voucher of the Attorney to the Elgin, Joliet and Eastern Railway Company in full payment for said lands, the sum of $150 on the delivery of a good and sufficient quit-claim deed satisfactory to the Attorney of the District.

Mr. Carter, seconded by Mr. Smyth, moved that the report be adopted and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—eight. Nays—none.

Excused and not voting—Mr. Braden—one.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, June 27, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—The Joint Committee on Finance and Engineering beg leave to report that an agreement has been reached for the purchase of lands hereinafter described, for the corporate purposes of the District, with the Elgin, Joliet & Eastern Railway Company.

Your Committee, therefore, recommends that the Clerk of the District be and he is hereby authorized and directed to pay, on the voucher of the Attorney, the sum of one hundred and fifty dollars ($150.00) to the said Elgin, Joliet & Eastern Railway Company, on the delivery of a good and sufficient quit claim deed, satisfactory to the Attorney of the District, for the following described premises, to-wit:

All that part of the southwest quarter of Section thirty-four (34), Township thirty-six (36) North, Range ten (10) East of the Third Principal Meridian, which lies south of the south line of the present right of way of the Elgin, Joliet and Eastern Railway, described as follows:

Beginning at a point in the south line of said southwest quarter eleven hundred and forty-nine and seventy-two hundredths (1149.72) feet east of the southwest corner of said southwest quarter, said point being the intersection of south line of said southwest quarter with the west bank of Desplaines River; thence north along said river bank five hundred and seventy-four and two-tenths (574.2) feet to its intersection with the former south line of the right of way of the Joliet, Aurora & Northern Railway; thence east on a normal line to the center thread of the Desplaines River; thence northerly along the center thread to its intersection with a normal line drawn from a point in the west right of way line of the Chicago, Santa Fe and California Railway, nineteen hundred and ninety-five (1995) feet distant from the north line of said southwest quarter measured along said west right of way line; thence east along said line to its intersection with the west right of way line; thence southerly along said west right of way line to the south line of said southwest quarter; thence west along the south line of said southwest quarter to the point of beginning.

Also the right in perpetuity to the Sanitary District of Chicago to cause water to flow over and across the "right of way" of the party of the first part, between the piers or abutments located on said right of way, between the piers located at a point seven hundred and fifty-six (756) feet measured in a northwesterly direction along the center line of the main track of the said railway company from a point where the east and west township line between the Townships of Joliet and Lockport crosses the said center line and the pier of abutment located eleven hundred and fifty (1150) feet northwesterly from the pier first herein described, measured along the center of the main track of the said railway company; all of said right of way between the said piers being in Section thirty-four (34) hereinabove described.

Said land being situate in the County of Will and State of Illinois.

Respectfully submitted,

(Signed) Z. R. CARTER,
Chairman.
THOMAS A. SMYTH,
FRANK WENTER,
J. P. MALLETTE,
THOMAS KELLY,
B. A. ECKHART,
ALEX. J. JONES,
WM. BOLDENWECK,
Joint Committee on Finance and Engineering."

(Accompanied by plat).

PAYMENT FOR CERTAIN PROPERTY IN ACCORDANCE WITH COURT DECREE IN THE CASE OF DISTRICT VS. ALANSON SWEET, ET AL.

Mr. Carter, Chairman, presented, and the Clerk read, a report from the Joint Committee on Finance and Engineering setting forth that a verdict has been rendered and decree entered by the court in the condemnation proceedings entitled "The Sanitary District of Chicago vs. Alanson Sweet, et al," and recommending that the Clerk of the District be directed to pay on the voucher of the Attorney to the County Treasurer of Will County, or the various persons respectively named, certain sums as set forth in the report in full payment for certain lands and in full satisfaction of the verdict of the jury in said case, all as set forth in the report.

Mr. Carter, seconded by Mr. Smyth, moved that the report be adopted and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—nine. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, June 27, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—The Joint Committee on Finance and Engineering herewith respectfully reports that a verdict has been rendered by the jury which was empanelled to ascertain and award the just compensation to persons whose property was included in the condemnation proceedings begun by the District in Will County in the case entitled "The Sanitary District of Chicago vs. Alanson Sweet, et al,' and the decree entered in accordance with said verdict. The said verdict of the jury and decree entered thereupon for the taking of the property hereinabove referred to being as follows:

To John T. White, or the County Treasurer of Will County, compensation was awarded in the sum of three hundred and twenty-five dollars ($325.00) for the taking of the premises hereinafter described.

To Addie Eliza House, or to the County Treasurer of Will County, compensation was awarded in the sum of one hundred dollars ($100.00) for the taking of the premises hereinafter described.

To Amanda D. Higgins, or to the County Treasurer of Will County, compensation was awardad in the sum of seventy five dollars ($75.00) for the taking of the premises hereinafter described.

To John T. Donahoe, or to the County Treasurer of Will County, compensation was awarded in the sum of three hundred and twenty-five dollars ($325.00) for the taking of the premises hereinafter described.

To Arthur J. Caton, Carrie Williams, John Deane Towne and Norman Towne, or to the County Treasurer of Will County, compensation was awarded in the sum of eighty-five dollars ($85.00) for the taking of the premises hereinafter described.

To Samuel S. Parks and James G. Elwood, or to the County Treasurer of Will County, compensation was awarded in the sum of five hundred dollars ($500.00) for the taking of the premises hereinafter described.

To John E. Bush, or to the County Treasurer of Will County, compensation was awarded in the sum of three hundred dollars ($300.00) for the taking of the property hereinafter described.

To James B. Speer, or to the County Treasurer of Will County, compensation was awarded in the sum of seven hundred dollars ($700.00) for the taking of the premises hereinafter described.

Your Joint Committee, therefore, recommends that the Clerk of the District be and is hereby authorized and directed to pay on the voucher of the Attorney to the Treasurer of Will County or to John T. White in full payment and in full satisfaction of the verdict of the jury in the case of the Sanitary District of Chicago vs. Alanson Sweet et al., and the judgment of said court thereon for the premises taken the sum of three hundred and twenty-five dollars ($325.00) for the following described premises, to-wit:

That part of Lot four (4), Block one hundred and thirty-eight, School Section Addition to Joliet, which lies east of the tow path of the Illinois & Michigan Canal;

Lot two (2), Block one hundred and thirty nine (139), School Section Addition to Joliet;

Lot four (4), Block one hundred and

thirty-nine (139), School Section Addition to Joliet;

Lot one (1), Block one hundred and forty (140), School Section Addition to Joliet.

To the County Treasurer of Will County, or to Addie Eliza House, in full payment and in full satisfaction of the verdict of the jury in the case of The Sanitary District of Chicago vs. Alanson Sweet, et al, and the judgment of the said court thereon, of the sum of one hundred dollars ($100) for the taking of the following described premises, to-wit:

Lot three (3), Block one hundred and thirty-nine (139), School Section Addition to Joliet.

To the County Treasurer of Will County, or to Amanda D. Higgins, in full payment and in full satisfaction of the verdict of the jury in the case of The Sanitary District of Chicago vs. Alanson Sweet, et al, and the judgment of the court thereon, the sum of seventy-five dollars ($75) for the taking of the following described premises, to-wit:

Lot one (1), Block one hundred and thirty-nine (139), School Section Addition to Joliet.

To the County Treasurer of Will County, or to John T. Donahoe, in full payment and in full satisfaction of the verdict of the jury in the case of The Sanitary District of Chicago vs. Alanson Sweet, et al, and the judgment of the court thereon, the sum of three hundred and twenty-five dollars ($325), for the taking of the following described premises:

That part of Lot seven (7), Block one hundred and thirty-four (134), School Section Addition to Joliet, which lies east of the tow path of the Illinois and Michigan Canal;

That part of Lot five (5), Block one hundred and thirty-four (134), School Section Addition to Joliet, which lies east of the tow path of the Illinois and Michigan Canal;

That part of Lot eight (8) Block one hundred and thirty-four (134), School Section Addition to Joliet, which lies east of the tow path of the Illinois and Michigan Canal;

That part of Lot four (4), Block one hundred and thirty-four (134), School Section Addition to Joliet, which lies east of the tow path of the Illinois and Michigan Canal.

To the County Treasurer of Will County, or to Arthur J. Caton, Carrie Williams, John Deane Towne and Norman Towne, in full payment and in full satisfaction of the verdict of the jury in the case of The Sanitary District of Chicago vs. Alanson Sweet, et al., and the judgment of said court thereon, the sum of eighty-five dollars ($85.00) for the taking of the following described premises, to-wit:

Lot two (2), Block one hundred and forty (140), School Section Addition to Joliet;

All that part of Lot one (1), Block one hundred and thirty-eight (138), School Section Addition to Joliet, which lies east of the tow path of the Illinois and Michigan Canal.

To the County Treasurer of Will County, or to Samuel S. Parks and James G. Elwood, in full payment and in full satisfaction of the verdict of the jury in the case of the Sanitary District of Chicago vs. Alanson Sweet et al. and the judgment of the court thereon, the sum of five hundred dollars ($500.00) for the taking of the following described premises, to-wit:

Lot three (3), Block one hundred and thirty-three (133), School Section Addition to Joliet;

Lot four (4), Block one hundred and thirty-three (133), School Section Addition to Joliet;

Lot one (1), Block one hundred and thirty-three (133), School Section Addition to Joliet;

Lot two (2), Block one hundred and thirty-three (133), School Section Addition to Joliet;

That part of Lot one (1), Block ninety-seven (97), School Section Addition to Joliet, which lies east of the tow path of the Illinois and Michigan Canal;

That part of Lot two (2), Block ninety-seven (97), School Section Addition to Joliet, which lies east of the tow path of the Illinois and Michigan Canal;

To the County Treasurer of Will County, or to John E. Bush, in full payment and in full satisfaction of the verdict of the jury in the case of The Sanitary District of Chicago vs. Alanson Sweet et al., and the judgment of said court entered thereon, the sum of three hundred dollars ($300.00), for the taking of the following described premises, to-wit:

All that part of Lot seven (7), Block one hundred and twenty-four (124),

School Section Addition to Joliet, which lies east of the tow path of the Illinois and Michiaan Canal;

That part of Lot eight (8), Block one hundred and twenty-four (124), School Section Addition to Joliet, which lies east of the tow path of the Illinois and Michigan Canal;

That part of Lot five (5), Block one hundred and twenty-four (124), School Section Addition to Joliet, which lies east of the tow path of the Illinois and Michigan Canal;

That part of Lot four (4), Block one hundred and twenty-four (124), School Section Addition to Joliet, which lies east of the tow path of the Illinois and Michigan Canal;

To the County Treasurer of Will County, or to James B. Speer, in full payment and in full satisfaction of the verdict of the jury in the case of the Sanitary District of Chicago vs. Alanson Sweet et al., and the judgment of said court thereon, the sum of seven hundred dollars ($700.00) for the taking of the following described premises, to wit:

That part of Lot five (5), Block one hundred and seventeen (117) School Section Addition to Joliet, which lies east of the tow path of the Illinois and Michigan Canal;

That part of Lot one (1), Block one hundred and seventeen (117), School Section Addition to Joliet, which lies east of the tow path of the Illinois and Michigan Canal;

That part of Lot four (4), Block one hundred and seventeen (117), School Section Addition to Joliet, which lies east of the tow path of the Illinois and Michigan Canal;

That part of Lot five (5), Block one hundred and seven (107), School Section Addition to Joliet, which lies east of the tow path of the Illinois and Michigan Canal;

That part of Lot six (6), Block one hundred and seven (107), School Section Addition to Joliet, which lies east of the tow path of the Illinois and Michigan Canal;

That part of Lot four (4), Block one hundred and seven (107), School Section Addition to Joliet, which lies east of the tow path of the Illinois and Michigan Canal;

That part of Lot one (1), Block one hundred and seven (107), School Section Addition to Joliet, which lies east of the tow path of the Illinois and Michigan Canal.

All of said above described premises lying and being situated in the City of Joliet, County of Will and State of Illinois.

Attached hereto is a copy of the decree in the case hereinabove referred to.

Respectfully submitted,

(Signed) Z. R. CARTER,
Chairman.
THOMAS A. SMYTH,
FRANK WENTER,
THOMAS KELLY,
JOS. C. BRADEN,
B. A. ECKHART,
J. P. MALLETTE,
ALEX. J. JONES,
WM. BOLDENWECK,

Joint Committee on Finance and Engineering."

(Accompanied by copy of decree.)

REPORT IN REFERENCE TO AGREEMENT WITH CITY OF CHICAGO FOR MAINTENANCE OF PUMPING STATION SOUTH OF SEVENTY-FIFTH STREET.

Mr. Smyth, Chairman, presented, and the Clerk read, a report from the Committee on Engineering transmitting form of proposed agreement with the City of Chicago whereby the District is required to maintain until the first day of January, 1905, the pumping station south of Seventy-fifth Street, to be erected for the accommodation of the proposed new sewerage district, the report recommending that the agreement herewith submitted be adopted by the Board and the President and the Clerk authorized and directed to execute the same on behalf of the Sanitary District.

Mr. Smyth, seconded by Mr. Braden, moved that the report be adopted and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—nine. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT.

"CHICAGO, June 14, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Your Committee on En-

gineering, having had under consideration the proposed new sewerage district, comprising the territory within the Sanitary District of Chicago, south of Seventy-fifth Street and north of Eighty-seventh Street, which the necessity of a pure water supply requires should be drained northward and into the Drainage Channel, respectfully report that, after several conferences with the Sub-Committee of the Finance Committee of the City of Chicago and with the Honorable L. E. McGann, Commissioner of Public Works of the City of Chicago, regarding such a plan for the solution of this question as will afford the relief which the taxpayers of this portion of the Sanitary District in equity have a right to demand, an agreement has been reached with said Sub-Committee satisfactory to all interests involved.

By the terms of this agreement the Sanitary District is required to maintain until the first day of January, 1905, the pumping station south of Seventy-fifth Street to be erected for the accommodation of the proposed new sewerage district. While, in the abstract, there is no reason why this burden of expense should be borne by the Sanitary District of Chicago, yet in order to meet the equitable demands for relief which have been made by the Sanitary District taxpayers in this portion of the city, your Committee believes that this action will be commended by all citizens of the District who expect the consummation of our work to result in the cardinal object of the District's organization—a pure water supply.

Your Committee, therefore, recommends that the agreement herewith submitted, between the Sanitary District of Chicago and the City of Chicago, be adopted by your Honorable Body and the President and Clerk of the District authorized to execute the same on behalf of the Sanitary District of Chicago:

Respectfully submitted,

(Signed) THOMAS A. SMYTH,
Chairman.

Z. R. CARTER,
JOS. C. BRADEN,
WM. BOLDENWECK.
FRANK WENTER,
ALEX. J. JONES,
Committee on Engineering."

REPORT IN REFERENCE TO FINAL PAYMENT ON CONTRACT FOR SUPERSTRUCTURE OF A., T. & S. F. BRIDGE ACROSS MAIN CHANNEL ON SECTION 8.

Mr. Smyth, Chairman, presented, and the Clerk read, a report from the Committee on Engineering with reference to, and accompanied by, the final certificate of the Chief Engineer as to the completion of the work on the contract with the Carnegie Steel Company, Ltd., for the superstructure of the A., T. & S. F. Bridge across the Main Channel on Section 8; the report recommending that the sum of $19,000 be withheld by the District and charged against the account of the said Carnegie Steel Company, Ltd., on account of delinquency in the completion of the work within the time specified in said contract, and further recommending that the balance remaining, $11,768.40, be paid to said company on the execution of a proper receipt releasing the District from all claims and demands of whatsoever kind or nature arising under said contract.

Mr. Smyth, seconded by Mr. Jones, moved that the report be adopted and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—eight. Nays—Mr. Braden—one.

Mr. Braden explained his vote, that as the Sanitary District was not a loser by the delay he was not in favor of deducting the $19,000 as it will only result in a law suit.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, June 26, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—The Committee on Engineering desires to report that the committee has had under consideration the final certificate of the Chief Engineer of the District in favor of the Carnegie Steel Company, Limited, for the work done by it under its contract with the District dated May 31, A. D. 1898, for the superstructure of the Atchison, Topeka & Santa Fe Railway Bridge across the Main Channel on Contract Section eight (8), at Lemont; and that the Committee has fully considered the subject matter of said final certificate and advises the Board of Trustees as follows:

That it appears from the several amounts set forth on said final certificate that the total amount unpaid to said company upon the contract for said work is thirty thousand seven hundred and sixty-eight and forty hundredths dollars ($30,-768.40). There is a clause, however, in the contract above mentioned, providing that said company shall pay, as liquidated damages, one hundred dollars ($100) per day for each day beyond the time specified in the contract within which the work provided was to be completed. The time set for completion was the 1st day of November, A. D. 1898; the acceptance of the bridge by the inspectors bears date May 18th, A. D. 1899. Under the terms of the contract there is, therefore, a delinquency of one hundred and ninety-eight (198) days on the part of the contractors in the completion of the work within the time specified. The Engineer, however, has remitted eight (8) days of this time and has computed that the amount of forfeiture for delinquency equals the sum of nineteen thousand dollars ($19,000.00).

In view of all the circumstances in connection with the matter, the Committee recommends that the said sum of nineteen thousand dollars ($19,000.00) be withheld by the District and charged against the account of the said Carnegie Steel Company, Ltd., and deducted from the amount remaining unpaid as aforesaid, and that the balance thereafter remaining, to-wit, eleven thousand seven hundred and sixty-eight dollars and forty cents ($11,768.40), be paid to said Carnegie Steel Company, Ltd., in the usual form in which payments are made, upon said company's executing a proper receipt in favor of the District releasing the District from all claims and demands of whatsoever kind or nature arising under said contract.

Respectfully submitted,

(Signed) THOMAS A. SMYTH,
Chairman,
J. P. MALLETTE,
B. A. ECKHART,
THOMAS KELLY,
FRANK WENTER,
WM. BOLDENWECK,
ALEX. J. JONES,
Committee on Engineering."

(Accompanied by final certificate).

The following is

THE FINAL CERTIFICATE OF THE CHIEF ENGINEER:

"CHICAGO, June 26, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I hereby certify that the Carnegie Steel Company, Ltd., has completed all of the work covered by its contract dated May 31, 1898, for the superstructure of the bridge of the A., T. & S. F. Ry. Co. across the Main Channel on Contract Section 8, at Lemont, to the full satisfaction of the Chief Engineer and in accordance with the terms of the said contract with the Sanitary District, except that the said company is subject to a forfeiture, under the terms of the contract, of $100 per day for 190 days delay beyond the 1st day of November, 1898. This certificate is given subject to any unaccrued or unmatured obligations imposed by the contract.

The following is a statement covering same:

Contract price for superstructure complete	$76,185 00
Extra material, 11,545 lbs. steel at $2.55	294 40
Total	$76,479 40
Less amount paid on previous estimate	45,711 00
Amount unpaid	$30,768 40
Less amount of forfeit for delinquency	19,000 00
Amount due and unpaid	$11,768 40

NOTE—By the terms of its contract (see Clause 118), this company agrees to forfeit $100.00 per day for each day after November 1, 1898, that it is delinquent in the completion of its contract. The acceptance of the bridge by the Inspectors bears date of May 18, 1899, which makes the company 198 days delinquent, to cover any reasonable claim of delay on account of acts or omissions of this District or its agents, I have remitted eight days, leaving a liability to the forfeiture of $19,000.00.

Respectfully submitted,

(Signed.) ISHAM RANDOLPH,
Chief Engineer."

PAYMENT OF MATURING BONDS AND INTEREST.

Mr. Carter presented, and seconded by

Mr. Eckhart, moved the adoption of the following

ORDER:

"*Ordered*, That the Clerk of the Sanitary District of Chicago be, and he hereby is, instructed to draw a warrant, payable to the order of the Treasurer of the District for the sum of three hundred and seventy-six thousand five hundred and fifty-six dollars ($376,556), to be used by said Treasurer in the payment of the principal and interest of bonds maturing on the first day of July, 1899, as follows:

Third issue, 150 bonds (fifth payment)		$150,000
Second issue, six months interest on $2,250,000 at five per cent	$56,250	
Third issue, six months interest on $2,400,000 at five per cent	60,000	
Fourth issue, six months interest on $3,200,000 at four and one-half per cent	72,000	
Fifth issue, six months interest on $680,000 at four and one-half per cent	15,300	
Sixth issue, six months interest on $720,000 at four and one-half per cent	16,200	
Seventh issue, six months interest on $200,000 at three and one-half per cent	3,500	
Eighth issue, six months interest on $190,000 at three and one-half per cent (less one day)	3,306	
Total interest		$226,556
Grand Total		$376,556"

On roll-call on the motion for the adoption of the order the vote stood: Yeas — Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—nine. Nays—none.

Upon this result the President declared the motion carried.

PAYMENT OF RENTAL UNDER AGREEMENT WITH CHICAGO AND ALTON RAILROAD COMPANY FOR BY-PASS ALONG CHICAGO RIVER.

Mr. Carter presented, and seconded by Mr. Kelly, moved the adoption of the following

ORDER:

"*Ordered*, That the President and Clerk of the District be and they are hereby authorized and directed to pay on the voucher of the Attorney to the Chicago & Alton Railroad Company the sum of fifty-eight and thirty-four one-hundredths dollars, said amount being the annual payment of rent due for the period June 1, A.D. 1899, to May 31, 1900, pursuant to an agreement heretofore made with the Sanitary District of Chicago, under date of June 11, 1898, (page 4893 of the Proceedings); said payment to be charged to the Land Account of the District."

On roll-call on the motion for the adoption of the order the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—nine. Nays—none.

Upon this result, the President declared the motion carried.

CLOSING OF OFFICES ON INDEPENDENCE DAY.

Mr. Braden, seconded by Mr. Mallette, moved that the offices of the District be closed on Tuesday, July 4, 1899, the same being Independence Day, a legal holiday.

The motion prevailed unanimously and it was so ordered.

ADJOURNMENT.

On motion of Mr. Kelly, seconded by Mr. Wenter, the Board then adjourned.

Joseph F. Haas

Clerk.

PROCEEDINGS

—OF THE—

BOARD OF TRUSTEES

—OF THE—

SANITARY DISTRICT OF CHICAGO.

JULY 5, 1899.

OFFICIAL RECORD

Published by authority of the Board of Trustees the Sanitary District of Chicago.

The four hundred and forty-fifth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Wednesday, July 5, 1899, at 2 o'clock P. M.

On roll call Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—nine members, were present.

President Boldenweck then called the Board to order.

MINUTES.

The minutes of the regular meetings held June 21 and June 28, 1899, were approved as printed, on motion of Mr. Smyth, seconded by Mr. Braden.

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*VOUCHERS.

The Clerk presented the following vouchers :

POLICE DEPARTMENT.

E. J. Coen (Expense) ..... $ 53 51

CONSTRUCTION ACCOUNT.

Hayes Bros. (Section 16, July 1, 1899) ..... $ 4,009 69
Heldmaier & Neu (Section 17, July 1, 1899) 13,495 13
Gahan & Byrne (Section 18, July 1, 1899) 25,815 13

Halvorson, Richards & Co. (Section E, July 1, 1899)	$ 1,020 42	
Gahan & Byrne (Section G. July 1, 1899)	2,646 42	
Gahan & Byrne (Section H, July 1, 1899	2,632 62	
Hayes Bros. et al. (Section N, July 1, 1899)	1,783 28	
Hayes Bros. et al. (Section N, park filling)	536 20	
Lydon & Drews Company (Chicago River dredging)	8,113 00	
Lydon & Drews Company (Chicago River By-pass)	16,685 55	
Lydon & Drews Company (Removing Taylor Street Bridge)	10,450 00	
The Scherzer Rolling Lift Bridge Company (Eight-track Bridge	7,911 05	
Christie & Lowe (Bear Trap Dam, sundries)	350 61	
Geo. M. Huss (Section O—P. H. Bridge)	301 00	
The Marsh & Bingham Company (Section O, Pumping Plant)	11 52	
		$95,761 62
Total		$95,815 13

*To be paid by warrants with interest coupons attached, drawn against the Tax Levy for 1899.

Mr. Carter, seconded by Mr. Wenter, moved that the vouchers as read and shown above be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—nine. Nays—none.

Upon this result the President declared the motion carried.

WEEKLY REPORT ON EMPLOYES.

The Clerk presented a report, in accordance with the Rules, showing the number of persons in the employ of the District for the week ending July 1, 1899, which was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, July 5, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the week ending July 1, 1899, as the same have been reported to me:

Engineering department	81
Maintenance account	11
Clerical department	5
Law department	8
Treasury department	1
Police department	28
General	9
Total employes	143

Respectfully submitted,

JOSEPH F. HAAS,
Clerk."

PAYMENT BY A., T. & S. F. RY. CO. FOR ONE-HALF COST OF SUPERSTRUCTURE OF A., T. & S. F. BRIDGE ACROSS DES PLAINES RIVER ON SECTION 8.

The Clerk presented and read a report from the Chief Engineer with reference to, and accompanied by, voucher check of the A., T. & S. F. Ry. Co. for $13,769.25, the same being in payment of bill rendered by the District to said company on account of one-half cost of constructing the superstructure of the A., T. & S. F. Bridge across Desplaines River on Section 8, in accordance with the terms of the agreement of May 25, 1896, with the companies of the Santa Fe system.

Mr. Carter, seconded by Mr. Jones, moved that the report and accompanying voucher check be received and the amount of said voucher check turned over to the Treasurer for the credit of the District.

On roll call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—nine. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT.

"CHICAGO, July 5, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Under the terms of the contract between this District and the Atchison, Topeka & Santa Fe Railway Company (California Company) one-half of the cost of constructing the bridge at Lemont (34A) and the bridge just south

of the Spillway (No. 5), both across the Desplaines River, was to be done by this District (see Sections 4 and 5 of Article 1, Proceedings page 3361). This work is all completed.

The Railway Company furnished and built Bridge No. 5 and built the masonry of Bridge 34A. The superstructure of this bridge was built by the Penn Bridge Company, under contract with this District.

The Santa Fe Company billed against this District for $28,969.99, one-half of the outlay made by that Company, and payment of that amount has been made on our voucher No. 379 (1899 tax levy).

I transmit herewith voucher check of the Atchison, Topeka & Santa Fe Railway for $13,769.25, in payment of bill rendered by us for the balance due this District on account of said bridge construction after paying the Penn Bridge Company and the bill rendered by the Santa Fe Company.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,
Chief Engineer."

(Accompanied by voucher check.)

PAYMENT FOR CERTAIN PROPERTY IN ACCORDANCE WITH COURT DECREE IN THE CASE OF DISTRICT VS. THE AMERICAN STONE CO. ET AL.

Mr. Carter, Chairman, presented, and the Clerk read, a report from the Joint Committee on Finance and Engineering setting forth that a verdict has been rendered and decree entered by the court in the condemnation proceedings entitled "The Sanitary District of Chicago vs. The American Stone Company et al," and recommending that the Clerk of the District be directed to pay, on the voucher of the Attorney, the sum of $1,400 to the County Treasurer of Will County or to the person or persons interested, in full payment for the premises described and in full satisfaction of the verdict of the jury in said case, all as set forth in the report.

Mr. Carter, seconded by Mr. Smyth, moved that the report be adopted and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Smyth and Wenter—eight. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, June 27, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—The Joint Committee on Finance and Engineering herewith respectfully reports that a verdict has been rendered by the jury which was empanelled to ascertain and award the just compensation to persons whose property was included in the condemnation proceedings begun by the District in Will County in the case entitled "The Sanitary District of Chicago vs. The American Stone Company, et al," and the decree entered in accordance with said verdict. The said verdict of the jury and decree entered thereupon for the taking of the property hereinabove referred to being as follows:

To the parties interested, or to the County Treasurer of Will County, the sum of fourteen hundred dollars ($1,400.00) for the taking of the premises hereinafter mentioned.

Your Joint Committee, therefore, recommends that the Clerk of the District be and he is hereby authorized and directed to pay, on the voucher of the Attorney, the sum of fourteen hundred dollars ($1,400.00) to the County Treasurer of Will County, or to the person or persons interested, in full payment and in full satisfaction of the verdict of the jury in the case of the Sanitary District of Chicago vs. The American Stone Company, et al, and the judgment of said court thereon for the taking of the following described premises, to-wit:

That part of Lot twenty-five (25), Block three (3), Addition to South Park lying east of a line drawn from the south-east corner of Lot twenty-five (25) to the north-west corner of Lot twenty-six (26), Block three (3), Addition to South Park;

Also that part of Lot twenty-six (26), Block three (3), Addition to South Park, lying east of a line drawn from the south-east corner of Lot twenty-five (25) to the north-west corner of said Lot twenty-six (26), Block three (3).

Also Lot twenty-seven (27), Block three (3), Addition to South Park;

Also Lot twenty-eight (28), Block three (3), Addition to South Park;

Also Lot twenty-nine (29), Block three (3), Addition to South Park;

Also Lot thirty (30), Block three (3), Addition to South Park;

Also Lot thirty-one (31), Block three (3), Addition to South Park;

Also Lot thirty-two (32), Block three (3), Addition to South Park;

Also Lot thirty-three (33), Block three (3), Addition to South Park;

Also that part of Lot four (4), Block four (4), Addition to South Park, lying east of a line drawn from the south-east corner of Lot four (4), Block four (4), to the northwest corner of Lot three (3), Block four (4), Addition to South Park;

Also that part of Lot three (3), Block four (4), Addition to South Park, lying east of a line drawn from the south-east corner of Lot four (4), Block four (4), to the north-west corner of said Lot three (3), Block four (4);

Also Lot two (2), Block four (4), Addition to South Park;

Also Lot one (1), Block four (4), Addition to South Park;

And also that part of Lot twenty-six (26), Block four (4), lying north of a line two hundred (200) feet distant from and parallel to the south line of said Lot twenty-six (26);

Reserving therefrom any right to an island in the Desplaines River opposite said lots;

All of the above described premises being situate in the City of Joliet, County of Will and State of Illinois.

(Signed) Z. R. CARTER,
Chairman.
THOMAS A. SMYTH,
B. A. ECKHART,
J. P. MALLETTE,
THOMAS KELLY,
ALEX. J. JONES,
FRANK WENTER,
WM. BOLDENWECK,
Joint Committee on Finance and Engineering.

REPORT IN REFERENCE TO AGREEMENT WITH W. G. ROELKER AND WIFE.

Mr. Carter, Chairman, presented, and the Clerk read, a report from the Joint Committee on Finance and Engineering, transmitting form of agreement between Wm. G. Roelker and Eleanor J. Roelker, his wife, and the Sanitary District of Chicago, in accordance with previous oral agreement between the said parties, by the terms of which said Roelker and his wife are to furnish a warranty deed and guarantee abstract of title to certain property, and the District is to construct a certain dock, all as set forth in the report and agreement, the report recommending that the President and Clerk of the District be authorized to execute said agreement and that a copy of same shall be delivered when the same shall have been executed by said Roelker and wife.

Mr. Carter, seconded by Mr. Kelly, moved that the report be adopted and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—nine. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, June 20, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Your Joint Committee on Finance and Engineering beg leave to report that the District has acquired of William G. Roelker and Eleanor J. Roelker, his wife, certain property along the Chicago River, which is described in the form of agreement hereto attached; that, during the negotiations for the acquisition of said property, it was orally agreed that said William G. Roelker and Eleanor J. Roelker, his wife, should furnish a warranty deed to said property and a guarantee abstract of title in the sum of six thousand dollars ($6,000); and that the Sanitary District, after the excavation of the property acquired from said Roelker and wife, should construct a dock on the remaining portions of the lots fronting on the Chicago River. This understanding between the parties was never reduced to written agreement and your Joint Committee herewith submits a form of a written agreement embodying the terms of the prior oral agreement and recommends the execution of the same by the President and Clerk on behalf of the District and the delivery of a copy when the same shall have been executed on the part of the said William G.

Roelker and Eleanor J. Roelker, his wife.

Respectfully submitted,

(Signed) Z. R. CARTER,
Chairman.
THOMAS A. SMYTH,
B. A. ECKHART,
THOMAS KELLY,
FRANK WENTER,
JOS. C. BRADEN,
J. P. MALLETTE,
ALEX. J. JONES,
WILLIAM BOLDENWECK,

Joint Committee on Finance and Engineering.

(Accompanied by form of agreement.)

REPORT ON AMENDMENT TO RULE 37 OF RULES AND REGULATIONS.

Under the head of new business, Mr. Braden, on behalf of the Committee on Rules, presented, and the Clerk read, a report recommending that Rule 37 of the Rules and Regulations of the Board be amended so that the salary of the Chief Engineer shall be fixed by the Board or the Committee on Engineering at a sum not to exceed $7,000 per annum.

Under the rules the report was ordered printed and laid over, by unanimous consent.

The following is

THE REPORT:

CHICAGO, July 5, 1899.

To the Honorable the Board of Trustees of Sanitary District of Chicago:

GENTLEMEN — Your Committee on Rules respectfully recommends that Rule 37 of the Rules and Regulations of the Board of Trustees be so amended as to read as follows:

CHIEF ENGINEER.

37. The Chief Engineer shall have charge of all engineering work under direction of the Board or the Committee on Engineering, and shall devote his time to the Sanitary District. Under his direction all surveying and civil engineering necessary, or ordered by the Board or by the Committee on Engineering, shall be done, and he shall perform such other duties as may be imposed upon him from time to time by ordinances, orders or resolutions of the Board or the Committee on Engineering and shall attend the meetings of the Board when required. His salary to be fixed by the Board or the Committee on Engineering shall not exceed the sum of seven thousand ($7,000) dollars per annum, and his bond shall be in the sum of twenty thousand ($20,000) dollars.

Respectfully submitted,

(Signed) WM. BOLDENWECK,
Chairman.
JOS. C. BRADEN,
ALEX. J. JONES,
THOMAS KELLY,
J. P. MALLETTE,
Committee on Rules.

ADJOURNMENT.

On motion of Mr. Carter, seconded by Mr. Wenter, the Board then adjourned.

Joseph F. Haas
Clerk.

PROCEEDINGS

—OF THE—

BOARD OF TRUSTEES

—OF THE—

SANITARY DISTRICT OF CHICAGO.

JULY 12, 1899.

OFFICIAL RECORD

Published by authority of the Board of Trustees of the Sanitary District of Chicago.

REGULAR MEETING.

The four hundred and forty-sixth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Wednesday, July 12, 1899, at 2 o'clock P. M.

On roll-call Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—nine members, were present.

President Boldenweck then called the Board to order.

MINUTES.

The minutes of the regular meeting held July 5, 1899, were approved as printed on motion of Mr. Kelly, seconded by Mr. Mallette.

VOUCHERS.

The Clerk presented the following vouchers:

ENGINEERING DEPARTMENT.

P. F. Pettibone & Co. (stationery)	$ 7 00
E. & H. T. Anthony & Co. (photo supplies)	17 49
Keuffel & Esser Company (drafting supplies)	39 10
Eugene Dietzgen Company (blue printing)	16 06
Frederick Post Company (blue printing)	13 36
The Waukesha Water Company (water)	7 50
The Chicago Towel Supply Company (toweling to June 30, 1899)	32 85

Samuel L. Hanks (ice to June 30, 1899)	$ 34 50	
J. H. Alexander (rent, Lockport, June, 1899)	17 00	
The A., T. & S. F. Ry. Co. (track inspection)	9 07	
R. Seelig (repairing transit, etc.)	19 75	
Lockwood & Strickland Company (window sash, etc.)	6 50	
Edward Hines Lumber Company (lumber)	14 95	
The Marsh & Bingham Company (lumber)	46 21	
G. M. Wisner (expense)	36 02	
H. B. Alexander (expense)	45 14	
*W. T. Keating (expense)	82 07	
*The Canal Commissioners (inspectors, June, 1899)	150 00	
*Pittsburgh Testing Laboratory, Ltd. (inspecting bridge material)	130 28	
*Robert W. Hunt & Co. (inspecting bridge material)	990 53	
		$ 1,715 38

CLERICAL DEPARTMENT.

The Chicago Towel Supply Company (toweling to June 30, 1899)	$ 7 50	
Samuel L. Hanks (ice to June 30, 1899)	11 25	
		$ 18 75

GENERAL ACCOUNT.

Geo. E. Haseltine (livery)	$ 9 00	
Chicago Journal (advertising)	8 40	
The Chicago Chronicle Company (advertising)	13 00	
*The A., T. & S. F. Ry. Co. (special train)	125 00	
*John F. Higgins (printing Proceedings to June, 1899)	320 07	
*Security Deposit Company (rent offices, June, 1899)	458 33	
		$ 933 80

POLICE DEPARTMENT.

D. C. McCarthy (laundry, etc.)	$ 4 28	
Mrs. A. Hartwig (laundry, June, 1899)	5 00	
Sprague, Warner & Co. (sundries)	16 15	
Marshall Field & Co. (sundries)	15 99	
Heggie Bros. (boiler repairs)	11 30	
Wm. O'Connell (sundry supplies)	15 89	
W. H. Salisbury & Co. (steam hose)	38 55	
H. B. Alexander (expense)	29 31	
*Dearborn Drug and Chemical Works (boiler compound)	77 55	
*Weaver Coal Company (coal)	328 87	
*Weaver Coal Company (coal)	337 87	
		$ 839 34

*CONSTRUCTION ACCOUNT.

Mason & Hoge Company (Section 6, repairs)	$ 1,436 18	
Penn Bridge Company (Section 8, R. D. Bridge)	711 00	
Christie & Lowe (Section 15, Bear Trap Dam sundries)	1,171 12	
Hayes Bros. (Section 16, grading Lockport road)	85 82	
Heldmaier & Neu (Section 12, Romeo Highway Bridge)	392 74	
Heldmaier & Neu (Section 18, emergency works, Joliet)	13 73	
Gahan & Byrne (Section 18, sundry work)	476 54	
The Canal Commissioners (Section 18, Lock 5)	450 00	
Chicago, Rock Island & Pacific Ry. Co. (Section 18, temporary bridge)	2,017 58	
Chicago Junction Ry. Co. (Section O—P. H. temporary bridge)	48 03	
C. T. T. R. R. Co. (Section E—R. D. temporary bridge)	95 96	
C. T. T. R. R. Co. (Section O—P. H. temporary bridge)	87 86	
C. T. T. R. R. Co. (Chicago River Bridge power plant)	6,453 00	
P. Peterson (removal Western Avenue pontoon bridge)	340 00	
		$13,779 56
Grand total		$17,328 25

*To be paid by warrants, with interest coupons attached, drawn against the Tax Levy for 1899.

Mr. Carter, seconded by Mr. Wenter, moved that the vouchers as read and shown above be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Boldenweck Braden (*except as to voucher in favor of Christie & Love for $1,171.12 on which he voted nay*), Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—nine (*except as above stated*). Nays—none (*except as above stated*).

Upon this result the President declared the motion carried.

WEEKLY REPORT ON EMPLOYES.

The Clerk presented a report, in accordance with the rules, showing the number of persons in the employ of the District for the week ending July 8, 1899, which was read and by unanimous consent was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, July 12, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the week ending July 8, 1899, as the same have been reported to me:

Engineering department	82
Maintenance	15
Clerical department	5
Law department	8
Treasury department	1
Police department	28
General	9
Total employes	148

Respectfully submitted,

(Signed) JOSEPH F. HAAS,
Clerk."

MONTHLY REPORT FROM CLERICAL DEPARTMENT.

The Clerk presented a report from the Clerical Department for the month of month of June, 1899, which was read and by unanimous consent was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, July 1, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I herewith submit the report of the Clerical Department for the month of June, 1899.

The total expenditure of the District for the month was $778,515.16, of which amount the sum of $377,791.98 was paid in regular warrants, $388,507.97 in 1899 tax levy warrants, and the sum of $12,215.21 by the Treasurer of the District for which no warrant was required. Of the amount paid by the Treasurer the sum of $1,337.30 was for 1896 tax warrant redeemed, $10,472.49 for 1898 tax warrants redeemed, and $405.42 for interest on warrants redeemed.

The total amount expended on account of, and charged to, the Clerical Department during the month of June was $2,117.75, of which amount the sum of $2,086.67 was for salaries and $31.08 for general office expenses.

There are no outstanding liabilities against the Clerical Department and the expenditure for the present month will be about $1,200.00.

The total amount expended for account of, and charged to, the General Account during the month of June was $9,830.20, divided as follows:

Rent for June, 1899	$ 458 33
Printing	1,136 09
Streams examination	1,832 25
Insurance	360 00
Salaries	5,499 17
Advertising	188 35
General expenses	356 01
Total	$9,830 20

The expenditure for the present month for the General Account will be about $3,000.

Of the total amount of 1896 tax levy warrants issued there is now outstanding the sum of $11,372.05; of the 1897 tax levy warrants issued there is now outstanding the sum of $15,000; of the 1898 tax levy warrants issued there is now outstanding the sum of $888,523.07, and of the 1899 tax levy warrants there is now outstanding the sum of $985,255.

In the report of the Treasury Department for the month of May tax warrant No. 476, drawn against the 1897 levy for $119, redeemed during that month, was given as an 1896 tax warrant, causing an error in the amount of 1896 and 1897 tax warrants outstanding as shown in our report for the month of May. In the foregoing figures this error has been corrected.

The following is a tabulated statement of total expenditures for the month of June, 1899.

Account.	Regular Warrants.	1899 Tax Levy Warrants.	Paid by Treasurer.	Total for Month.
Engineering Department	$ 516 62	$ 20,596 28	.....	$ 21,112 90
Construction	.....	193,442 11	.....	193,442 11
Clerical Department	31 08	2,086 67	.....	2,117 75
Law Department	99 30	5,532 05	.....	5,631 35
Land	.....	2,618 34	.....	2,618 34
Treasury Department	.....	333 33	.....	333 33
General	374 27	9,455 93	.....	9,830 20
Police Department	82 90	4,741 58	.....	4,824 48
Bond	150,000 00	.....	.....	150,000 00
Interest and Premium	226,556 00	.....	.....	226,556 00
Maintenance	131 81	2,906 58	.....	3,038 39
Capitalization and Maintenance of Bridges	.....	121,795 10	.....	121,795 10
Special Commission	.....	25,000 00	.....	25,000 00
1896 Tax Warrant Redeemed	.....	.....	$ 1,337 30	1,337 30
1898 Tax Warrants Redeemed	.....	.....	10,472 49	10,472 49
Interest on Warrants Redeemed	.....	.....	405 42	405 42
Total	$377,791 98	$388,507 97	$ 12,21521	$778,515 16

Respectfully submitted,

(Signed) JOSEPH F. HAAS, *Clerk.*"

MONTHLY REPORT FROM TREASURY DEPARTMENT.

The Clerk presented a report from the Treasury Department for the month of June, 1899, which was read, and, by unanimous consent, was ordered printed and placed on file.

The following is THE REPORT:

Receipts.

Balance on hand at date of last report		$ 218,856 47
From J. F. Haas, Clerk, Land Account	$ 15 00	
From County Treasurer, Sanitary District Tax Account	300,000 00	
From Chicago National Bank, Interest Account	305 12	
Total cash received for month		$ 300,320 12
		$ 519,176 59

Disbursements.

Clerical Department	$ 31 08	
Engineering Department	558 39	
Law Department	166 55	
Land Account	15 41	
General Account	285 47	
Maintenance Account	192 90	
Police Department	85 08	
Tax Warrant Paid, Levy 1896	1,337 30	
Tax Warrants Paid, Levy 1898	10,472 49	
Interest Paid on Tax Warrant, Levy 1896	55 17	
Interest Paid on Tax Warrants, Levy 1898	350 25	
Total cash disbursed		$ 13,550 09
Balance this date, in banks as per schedule endorsed hereon		505,626 50
		$ 519,176 59

Schedule.

Chicago National Bank	$ 479,687 72
National Bank of Illinois	25,938 78
Total	$ 505,626 50

CHICAGO, June 10, 1899.

(Signed) F. M. BLOUNT, *Treasurer.*
By S. P. BLOUNT, *Asst. Treasurer.*

AMENDMENT TO RULE 37 OF RULES AND REGULATIONS.

Under the head of unfinished business the report of the Committee on Rules, amending Rule 37 of the Rules and Regulations of the Board, as set forth in the report, which was ordered printed and laid over at the meeting held July 5, 1899 (page 5915 of the Proceedings) was again read, as provided in the rules, for final action in reference to the same.

Mr. Jones, seconded by Mr. Braden, moved that the report be adopted and Rule 37 amended as provided in the report.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—nine. Nays—none.

Upon this result the President declared the motion carried.

The following is

RULE 37, AS AMENDED:

"CHIEF ENGINEER.

37. The Chief Engineer shall have charge of all engineering work, under direction of the Board or the Committee on Engineering, and shall devote his time to the Sanitary District. Under his direction all surveying and civil engineering necessary, or ordered by the Board or by the Committee on Engineering, shall be done, and he shall perform such other duties as may be imposed upon him from time to time by ordinances, orders or resolutions of the Board or the Committee on Engineering, and shall attend the meetings of the Board when required. His salary, to be fixed by the Board or the Committee on Engineering, shall not exceed the sum of seven thousand ($7,000) dollars per annum, and his bond shall be in the sum of twenty thousand ($20,000) dollars."

PURCHASE OF LAND FROM JAMES G. ELWOOD.

Mr. Carter, Chairman, presented, and the Clerk read, a report from the Joint Committee on Finance and Engineering setting forth that an agreement has been reached for the purchase of certain lands as described in the report and recommending that the Clerk of the District be authorized and directed to pay, on the voucher of the Attorney, to James G. Elwood, in full payment for the premises described, the sum of $340.00, on the delivery of a good and sufficient deed, satisfactory to the Attorney of the District.

Mr. Carter, seconded by Mr. Smyth, moved that the report be adopted, and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—nine. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, July 11, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—The Joint Committee on Finance and Engineering begs leave to report that an agreement has been reached for the purchase of lands, hereinafter described, for the corporate purposes of the District, with James G. Elwood.

Your Committee, therefore, recommends that the Clerk of the District be and he is hereby authorized and directed to pay, on the voucher of the Attorney, the sum of three hundred and forty dollars ($340.00) to said James G. Elwood on the delivery of a good and sufficient deed, satisfactory to the Attorney of the District, for the following described premises, viz.:

All that part of the southwest quarter (¼) of Section thirty-four (34), Township thirty-six (36) North, Range ten (10), East of the Third (3d) Principal Meridian, described as follows:

Beginning at a point in the south line

of said southwest quarter (¼), eleven hundred and forty-nine and seventy-two hundredths (1,149.72) feet east of the southwest corner of said southwest quarter (¼), said point being the intersection of said south line of said southwest quarter (¼) with the west bank of the Desplaines River; thence northerly along said river bank five hundred and seventy-four and two-tenths (574.2) feet to its intersection with the former south line of the right of way of the Joliet, Aurora and Northern Railway; thence east on a normal line to the center thread of the Desplaines River; thence southerly along said center thread to the south line of said southwest quarter (¼); thence west along said south line of said southwest quarter (¼) to the point of beginning, excepting therefrom the right of way of the Joliet, Aurora and Northern Railway; containing one and seventy hundredths (1.70) acres, more or less; said land being situated in the County of Will and State of Illinois.

Respectfully submitted,

(Signed) Z. R. CARTER,
Chairman.

JOS. C. BRADEN,
THOMAS A. SMYTH,
B. A. ECKHART,
ALEX. J. JONES,
FRANK WENTER,
WM. BOLDENWECK,

Joint Committee on Finance and Engineering."

REPORT IN REFERENCE TO FINAL PAYMENT ON CONTRACT FOR SUPERSTRUCTURE OF REGULATING WORKS AT LOCKPORT.

Mr. Smyth, Chairman, presented, and the Clerk read, a report from the Committee on Engineering, with reference to, and accompanied by, the final certificate of the Chief Engineer as to the completion of the work on the contract with Messrs. Christie & Lowe for the construction of the superstructure of the Regulating Works at Lockport, the report recommending that the President and Clerk of the District be authorized and directed to make payment to said Christie & Lowe in the sum of $9,390, when said contractors shall have filed with the District a receipt and release in full of all claims or demands of whatsoever kind or nature arising under said contract.

Mr. Mallette, seconded by Mr. Kelly, moved that the report be adopted and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Carter, Eckhart, Kelly, Mallette and Wenter—six. Nays—Mr. Braden—one. Excused and not voting—Mr. Jones—one.

Upon this result the President declared the motion carried.

Before voting on the report, Mr. Braden made the following explanation, which, at his request, and by unanimous consent, was ordered to be recorded in the Proceedings:

"One thousand nine hundred sixty-nine dollars and forty cents is allowed in the item of extra allowances for which I can see no reason of payment as the contract under which Christie & Lowe done their work expressly agrees that in case of the changes of the device, the contractor shall make such changes at their expense, and before signing the contract Mr. Lowe came before the Committee on Engineering and stated that in case of a change being made in the device, they would do so at their cost."

Before voting on the report, Mr. Mallette also made the following statement, which at his request, and by unanimous consent, was ordered to be recorded in the Proceedings:

"I want to say this: at the time that contract was entered into the supposition was there ought to be some trifling change in the plans of the Bear Trap Dam and since that time there have been radical changes, almost doubling the cost. I got that information from the Chief Engineer and I think they are entitled to the amount."

The following is

THE REPORT:

"CHICAGO, July 10, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—The Committee on Engineering reports that the Chief Engineer of the District has made out a final certificate in favor of Messrs. Christie & Lowe, contractors for the Bear Trap Dam superstructure, in the sum of nine thousand three hundred and ninety dollars ($9,390.00); and that the Committee has examined said final certificate and fully considered the subject matter thereof, and recommends as follows:

That the President and Clerk of the

District be authorized and directed to make payment to said Messrs. Christie & Lowe in the sum of nine thousand three hundred and ninety dollars ($9,390.00), the sum found to be due in the aforesaid certificate, in the usual form in which payments are made, when said contractors shall have filed with the District a receipt and release in full of all claims or demands of whatsoever kind or nature arising under said contract.

Respectfully submitted,

(Signed) J. P. MALLETTE,
THOMAS KELLY,
B. A. ECKHART,
FRANK WENTER,
WM. BOLDENWECK,
Committee on Engineering."

The following is

THE FINAL CERTIFICATE OF THE CHIEF ENGINEER:

"CHICAGO, July 5, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN — I hereby certify that Christie & Lowe have completed all of the work covered by their contract, dated January 18, 1896, for the furnishing, delivering and erecting in place the following parts of the Regulating Works:

Sluice gate masonry.

Sluice gate metal and wood work.

Bear Trap Dam metal and wood work.

This work is done to the full satisfaction of the Chief Engineer, and in accordance with the terms of the said contract with this District. This certificate is given subject to any unaccrued or unmatured obligations imposed by the contract.

The statement of this contract is as follows:

Excavation, 1,238 cu. yds. at 59c.....$	730 42
Concrete, 836.8 cu. yds. at $5.00.....	4,184 00
Lump sum for sluice gates.....	120,000 00
Lump sum for Bear Trap.....	58,000 00
Extra allowances, occasioned by delays in work and increased cost of parallel motion device.....	5,285 46
Total cost of contract.....	$188,199 88
Total amount paid, including $795.46 advanced on extra estimates, account painting, etc.....	178,809 88
Amount due and unpaid.....$	9,390 00

Respectfully submitted,

(Signed.) ISHAM RANDOLPH,
Chief Engineer."

COMMUNICATIONS IN REFERENCE TO RELEASE OF BOND ON CONTRACT FOR SUPERSTRUCTURE OF KEDZIE AVENUE BRIDGE ACROSS MAIN CHANNEL ON SECTION N, ON CONTRACT FOR SUPERSTRUCTURE OF A., T. & S. F. BRIDGE AT TWENTY-SIXTH STREET, AT WEST END OF SECTION N, AND ON CONTRACT FOR SUPERSTRUCTURE OF A., T. & S. F. BRIDGE ACROSS MAIN CHANNEL ON SECTION 8.

The Clerk presented three communications from the City Trust Safe Deposit and Surety Company of Philadelphia in reference to release of the bond of The King Bridge Company on their contract for the superstructure of the Kedzie Avenue bridge across Main Channel on Section N; and bonds of the Carnegie Steel Company (Limited) on their contracts for the superstructure of A., T. & S. F. bridge at Twenty-sixth Street at west end of Section N, and A., T. & S. F. bridge across Main Channel on Section 8, which by unanimous consent were referred to the Committee on Finance.

RECESS.

At 3 P. M. Mr. Wenter, seconded by Mr. Jones, moved that the Board take a recess for thirty minutes.

The motion prevailed unanimously and it was so ordered.

REPORT IN REFERENCE TO ASSIGNMENT BY THE SCHERZER ROLLING LIFT BRIDGE COMPANY TO M'ARTHUR BROS. COMPANY OF THE CONTRACT FOR ERECTING SUBSTRUCTURE OF EIGHT-TRACK RAILROAD BRIDGE ACROSS MAIN CHANNEL ON SECTION O, NEAR CAMPBELL AVENUE.

On reconvening Mr. Smyth, Chairman, presented, and the Clerk read, a report from that Committee in reference to, and accompanied by, the report of the Attorney to the Committee transmitting assignment by The Scherzer Rolling Lift Bridge Company to McArthur Bros. Company of the substructure work on the contract for erecting the eight-track railroad bridge across Main Channel on Section O, near Campbell Avenue; con-

sent of the surety company and the District to said assignment; waiver by The Scherzer Rolling Lift Bridge Company of claims for damages growing out of said contract with respect to the substructure and acceptance and agreement by McArthur Bros. Company; the report recommending that the President and Clerk of the District execute the proposed draft of the consent of the Sanitary District of Chicago to the said assignment of The Scherzer Rolling Lift Bridge Company, the same to be delivered by the President upon all papers relating thereto being properly executed by the parties to the same.

Mr. Smyth, seconded by Mr. Eckhart, moved that the report be adopted and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—nine. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT OF THE COMMITTEE:

"CHICAGO, July 12, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Your Committee on Engineering respectfully reports that it has considered the proposed drafts herewith accompanying the Attorney's opinion, and, after careful consideration, we recommend that your Honorable Body direct the President and Clerk of the District to execute the proposed draft of the consent of the Sanitary District of Chicago to the assignment by The Scherzer Rolling Lift Bridge Company to McArthur Bros. Company; the same to be delivered by the President upon all papers relating thereto being properly executed by the parties.

Respectfully submitted,

(Signed) THOMAS A. SMYTH,
Chairman.

J. P. MALLETTE,
B. A. ECKHART,
ALEX. J. JONES,
Z. R. CARTER,
THOMAS KELLY,
JOS. C. BRADEN,
FRANK WENTER,
WM. BOLDENWECK,
Committee on Engineering."

The following is

THE REPORT OF THE ATTORNEY.

"CHICAGO, July 12, 1899.

To the Honorable the Committee on Engineering:

GENTLEMEN—I respectfully transmit herewith,

First—Assignment by The Scherzer Rolling Lift Bridge Company to McArthur Brothers Company of the substructure work in the contract between the District and The Scherzer Rolling Lift Bridge Company.

Second—Consent of the Surety Company to the assignment by The Scherzer Rolling Lift Bridge Company.

Third—Consent of the District to the assignment by The Scherzer Rolling Lift Bridge Company to the McArthur Brothers Company.

Fourth—Waiver by The Scherzer Rolling Lift Bridge Company of all claims for damages which it has growing out of the said contract with respect to the substructure.

Fifth—Acceptance and agreement by McArthur Brothers Company.

I have given the foregoing papers careful consideration and find the same to be in due form of law.

Very respectfully,

(Signed) CHARLES C. GILBERT,
Attorney."

The following is

THE ASSIGNMENT BY THE SCHERZER ROLLING LIFT BRIDGE COMPANY TO M'ARTHUR BROTHERS COMPANY.

"*Know All Men by These Presents*, That The Scherzer Rolling Lift Bridge Company, a corporation of Illinois, for and in consideration of the sum of one dollar to it in hand paid, and of other good and valuable considerations, does hereby sell, assign, transfer and convey to McArthur Brothers Company, a corporation of Illinois, all its right, title and interest in and to that part of a certain contract made and entered into by the said The Scherzer Rolling Lift Bridge Company and the Sanitary District of Chicago, bearing date the 9th day of August, A. D. 1898, for the doing of the excavation and the erection of the substructure of a railroad bridge crossing the Main Drainage Channel, on its line near Campbell Avenue, in the City of Chicago, on Contract

Section "O," together with the building of all collateral works, which, by the terms of the said contract, are included in the substructure, and all extra work which has been or may be ordered thereunder, and all moneys that may be earned thereunder; and does also hereby sell, assign, transfer and convey to the said McArthur Brothers Company all its right, title and interest in and to any moneys now earned, or that may hereafter be earned and payable for the doing of the said substructure work as it progresses, and for any expediting thereof, and for any extra work connected therewith, and for final payment thereon when completed, including retained percentage on said substructure work. And the said The Scherzer Rolling Lift Bridge Company hereby consents to the separation and segregation of the substructure work and all work collateral thereto, and the payment therefor, from the doing and the payment for the superstructure work of the said railroad bridge, and makes the said McArthur Brothers Company its attorney in fact for the performance thereof and to receive payment therefor.

In Witness Whereof, The said The Scherzer Rolling Lift Bridge Company has hereunto caused its name to be set, and its corporate seal to be affixed by its officers duly authorized so to do, this 7th day of July, A. D. 1899.

The Scherzer Rolling Lift Bridge Co.,

(Signed) By ALBERT H. SCHERZER,
President.

Attest: A. G. ZIMMERMAFN,
[SEAL] *Secretary.*"

The following is

THE CONSENT OF THE SURETY COMPANY TO THE ASSIGNMENT:

"WHEREAS, The Scherzer Rolling Lift Bridge Company has entered into a certain contract for the building of a certain railroad bridge for the Sanitary District of Chicago, dated August 9th, 1898; and

WHEREAS, The undersigned, The City Trust, Safe Deposit and Surety Company of Philadelphia, company has executed its bond to secure the faithful performance of the said contract according to its terms and conditions by the said The Scherzer Rolling Lift Bridge Company; and

WHEREAS, The said The Scherzer Rolling Lift Bridge Company has assigned to the McArthur Brothers Company the doing of the substructure work under the said contract and the work incidental thereto, by and with the consent of the said Sanitary District of Chicago.

Now, therefore, In consideration of the premises and of the sum of one dollar to it in hand paid by the said Sanitary District of Chicago the said The City Trust, Safe Deposit and Surety Company of Philadelphia, company hereby consents to the said assignment by the said The Scherzer Rolling Lift Bridge Company, and consents that the bond of indemnity heretofore executed by it on behalf of the said The Scherzer Rolling Lift Bridge Company may continue to insure the performance of that portion of the said contract assigned by the said The Scherzer Rolling Lift Bridge Company to the said McArthur Brothers Company, and that the undersigned shall be and are hereby bound to secure the full and faithful performance of that portion of the said contract so assigned to the said McArthur Brothers Company, and all the provisions of the said bond are hereby extended to the said assigned contract.

In Witness Whereof, The said, The City Trust, Safe Deposit and Surety Company of Philadelphia, company has hereunto set its name and caused its seal to be attached by its officers duly authorized so to do.

(Signed)

The City Trust, Safe Deposit and Surety Company of Philadelphia.

By J. R. WALSH,
[SEAL] *Resident Vice-President.*

Attest: WILLIAM P. CAMPBELL,
Resident Assistant Secretary.

July 12, 1899."

The following is

THE CONSENT OF THE SANITARY DISTRICT TO THE ASSIGNMENT:

"*Know All Men by These Presents*, That the Sanitary District of Chicago hereby consents and approves of the assignment by The Scherzer Rolling Lift Bridge Company, a corporation, to the McArthur Brothers Company, a corporation, of that part of its contract with the Sanitary District of Chicago, dated the 9th day of August, A. D. 1898, for the doing of the excavation and the erection of the substructure of the railroad bridge crossing the Main Drainage Channel on

its line near Campbell Avenue, in the City of Chicago, on contract Section "O," together with the building of all collateral works, which by the terms of the said contract are included in the substructure work thereof, and for the expediting thereof, and any other extra work which has been or may hereafter be ordered by the Chief Engineer of the said Sanitary District of Chicago, thereunder appertaining to said substructure work; and further agrees to the separation and segregation of the substructure work, and the payment therefor, under the said contract, from the superstructure work thereunder; and that the said substructure work shall be paid for separately as the work progresses, and upon its completion the said Sanitary District of Chicago will estimate the same in full and make final payment thereon, including the retained percentage, to the said McArthur Brothers Company; but the consent and approval of this assignment is conditioned upon the written assent to said assignment by the surety on the bond heretofore given by the said The Scherzer Rolling Lift Bridge Company to secure said contract, and is not to be taken as a release of any present liability under said contract or bond.

In Witness Whereof, The said Sanitary District of Chicago has caused its name to be signed by its President and attested by its Clerk and its corporate seal to be hereto affixed this 12th day of July, A. D. 1899.

Sanitary District of Chicago.

(Signed) By WILLIAM BOLDENWECK,
President.

Attest:
JOSEPH F. HAAS,
Clerk.

Approved: [SEAL.]
CHARLES C. GILBERT,
Attorney."

The following is

THE WAIVER BY THE SCHERZER ROLLING LIFT BRIDGE COMPANY OF CLAIMS FOR DAMAGES:

"WHEREAS, The undersigned, The Scherzer Rolling Lift Bridge Company, has a certain contract with the Sanitary District of Chicago for the building of a certain railroad bridge at Campbell Avenue, in the said City of Chicago, bearing date of the 9th of August, 1898; and

WHEREAS, Also, undersigned has also certain claims for damages against the said Sanitary District of Chicago, arising under the said contract by reason of having been delayed and otherwise damaged in the doing of the substructure work under the said contract; and

WHEREAS, The undersigned has assigned the doing of the substructure work and the work incidental thereto to McArthur Brothers Company; and

WHEREAS, The said Sanitary District of Chicago has consented to the said assignment, and the said McArthur Brothers Company propose to forthwith proceed with the said substructure work and to expedite the doing of the same.

Now, therefore, The undersigned, The Scherzer Rolling Lift Bridge Company, hereby in consideration of the premises and of the sum of one dollar by it received from the said Sanitary District of Chicago hereby waives, relinquishes and discharges the said Sanitary District of Chicago of and from all claims for damages which it now has against the said Sanitary District of Chicago in reference to the said substructure work embraced in the said contract. But this waiver and release shall not be treated or considered as a waiver or release of any claim for damages which it, the said The Scherzer Rolling Lift Bridge Company, has against the said Sanitary District of Chicago in reference to the superstructure and superstructure work under the said contract for building the said railroad bridge, which said claims are expressly reserved to the undersigned.

In Witness Whereof, The said The Scherzer Rolling Lift Bridge Company has hereunto caused its name to be set and its seal to be affixed this 12th day of July, A. D. 1899.

(Signed)
The Scherzer Rolling Lift Bridge Company,
[SEAL.] By ALBERT H. SCHERZER,
President."

The following is

THE ACCEPTANCE AND AGREEMENT BY McARTHUR BROS. CO:

"*Know All Men by These Presents*, That the undersigned, McArthur Brothers Company, in consideration of the assignment to it by The Scherzer Rolling Lift Bridge Company of all the right, title, claims and interest of the said The Scherzer Rolling Lift Bridge Company in and to the substructure portion of

their contract for the excavation and erection of the substructure for the railroad bridge crossing the Main Drainage Channel on its line near Campbell Avenue, in the City of Chicago, on contract Section "O," together with the building of all collateral works, which, by the terms of the said contract, are included in the substructure part of the said work and for the expediting thereof, and any extra work ordered thereunder, and in and to any moneys due or that may become due thereunder, and of the consent and approval of the said Sanitary District of Chicago thereto; and that the said Sanitary District agrees also, with the undersigned, that upon the completion of the said substructure work it will estimate the same in full and make final payment thereon, including all retained percentage on said substructure work; do hereby on our part covenant and agree with the said Sanitary District of Chicago to carry out and perform all the terms and conditions as set forth in the said contract relating to the substructure work and all collateral work appertaining thereto, together with any changes or extra work which may be ordered in connection therewith by the Chief Engineer of the said District at the prices stated in said contract; and we hereby covenant and agree faithfully to carry out said agreement so far as same relates to the execution of said substructure work for said bridge, in consideration of the payments to be made to us as the work progresses at the prices therein stated and of the payment to us of all sums earned thereunder, including the retained percentage, within thirty days after the substructure work shall be completed.

In Witness Whereof, The said McArthur Brothers Company has hereunto caused its name to be set and its corporate seal to be hereto affixed by its officers duly authorized so to do, this 12th day of July, A. D. 1899.

(Signed) *McArthur Bros. Co.*

[SEAL] By A. McArthur,

President."

REPORT IN REFERENCE TO RE-ADJUSTMENT OF PRICES ON CONTRACT FOR SUBSTRUCTURE OF EIGHT-TRACK RAILROAD BRIDGE ACROSS MAIN CHANNEL ON SECTION O AND ON CONTRACT FOR SUPERSTRUCTURE FOR BY-PASS ALONG CHICAGO RIVER.

Mr. Smyth, Chairman, presented, and the Clerk read, a report from the Committee on Engineering with reference to, and accompanied by, the orders of the Chief Engineer, re-adjusting the prices on the contract for the substructure of the eight-track railroad bridge across Main Channel on Section O, near Campbell Avenue, heretofore made with the Scherzer Rolling Lift Bridge Company, and by it assigned to Messrs. McArthur Brothers Company, and also on the contract with Messrs. Griffiths & McDermott for the superstructure for by-pass along the Chicago River, the report recommending that the Board formally approve the findings of the Chief Engineer transmitted herewith.

Mr. Smyth, seconded by Mr. Mallette, moved that the report be adopted and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—nine. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT.

"Chicago, July 12, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

Gentlemen—Your Committee on Engineering beg leave to state that they have had under consideration the orders of the Chief Engineer, herewith transmitted, readjusting the prices on the substructure of the Campbell Avenue Bridge, and the superstructure of the By-pass between Adams and Van Buren Streets, rendered necessary by the demand of the Sanitary District that work at both of these points be completed ready for the turning of water into the Main Drainage Channel by December 1, 1899.

Your Committee and the Sub-committees thereof have held almost daily sessions with these contractors or their representatives for the past two weeks, in the endeavor to secure the lowest prices possible for the execution of this work on the date demanded by the Sanitary District. While your Committee feel that the prices demanded by these contractors, and finally acceded to by the Chief Engineer, are exorbitant and unjust to the Sanitary District, we have finally concluded that they were the best terms that could be secured under the circumstances, and involve the necessary sacrifice to be made on the part of

the District if the Channel is to be opened during the present year.

The residents and tax payers of the Sanitary District are clamoring for the advantages of this great public improvement at the earliest possible date, and in the hope that the necessity of this action may be appreciated by them, and the sanitary benefits of the Drainage Channel realized by the close of the passing year, your Committee unanimously recommend that your Honorable Body formally approve the findings of the Chief Engineer transmitted herewith.

Respectfully submitted,

(Signed) THOMAS A. SMYTH, *Chairman.*
J. P. MALLETTE,
ALEX. J. JONES,
Z. R. CARTER,
FRANK WENTER,
B. A. ECKHART,
J. C. BRADEN,
THOMAS KELLY,
WM. BOLDENWECK,
Committee on Engineering."

The following are

THE ORDERS OF THE CHIEF ENGINEER AND ACCEPTANCES:

"CHICAGO, July 11, 1899.

Messrs. Griffiths & McDermott, Contractors for Superstructure of By-Pass.

GENTLEMEN — Whereas certain questions have been raised by you as to the justice of a requirement on the part of the Sanitary District that you proceed with your contract for supplying and erecting the superstructure of the By-pass on the west side of the Chicago River through and across the lands of the Pennsylvania and Chicago and Alton R. R. Companies, in the City of Chicago, alleging in your own behalf that your said contract of June 30th, 1898, provided for the completion of all of the work called for therein on or before February 1st, 1899, and asserting that you were not allowed to enter upon the premises upon which the work was to be done within the life of your said contract, by reason of the failure of the said District to furnish you the substructure upon which to erect the superstructure called for by your contract, and further alleging that no part of the said substructure was ready to receive the superstructure until on or about June 20th last past. By reason of said failure on the part of the Sanitary District you allege that you were unable to do the work within the period for which you had made provision and that since that period the prices of materials and labor have advanced to such an extent that you would have to prosecute the contract without profit and even at actual loss. These questions having arisen and having been fully discussed by the parties to the contract and by them, under Clause "B" thereof, referred to the Chief Engineer for decision, I, as said Engineer, make the following rulings and awards;

Increased cost of cement.....	$ 2,500 00
Increased cost of sand	1,502 50
Increased cost of crushed stone	1,600 00
Increased cost of labor.....	7,500 00
Increased cost of erecting steel work	8,000 00
Increased cost of carpenter work	1,000 00
Increased cost of lumber.....	350 00
Holmes & Pyatt's bill on cast iron	750 00
Extension of surety bond.....	100 00
	$23,302 50
Increased cost of iron work to American Bridge Works....	15,000 00
	$38,302 50

Which prices shall be paid you on all work remaining to be done in full compensation for all losses, damages, or claims which have accrued to you in the past and which may arise in the future prosecution of this work under your said contract, due to the causes hereinbefore recited. Payments of these increased amounts to be made pro rata on the monthly progress of the work. Provided, however, that you shall immediately proceed to deliver the materials and begin the erection of the said superstructure and equip the work with such machinery and employ such a force of men as will insure the completion of all of the superstructure covered by your said contract on or before the fifteenth day of November, 1899, subject, however, to the condition that you shall not be held liable for delays to you arising out of failure to furnish you the substructure as fast as needed to enable you to prosecute your work continuously. If, however, you fail to make such progress as, in the judgment of the Chief Engineer, will insure the completion of said work on or before November 15th then he, the said Chief Engineer, shall in writing notify you that, in his judgment, you should increase the force of men and the equip-

ment of machinery, one or both, and in such written notification shall specify what he requires of you and if, at the expiration of ten days, you shall have failed to comply with his requirements, as stated to you in writing, then he shall at once, without further notice to you, have power to enter upon said work and place thereon such tools and appliances in addition to the equipment which you shall have upon the work at the time and employ such men and procure such materials as, in his judgment, shall be necessary to complete the work within the time specified herein and charge the same to your account. Save as herein set forth your contract of June 30th, 1898, shall be and remain in full force and effect. To avail yourselves of this adjustment you must file with the Clerk of this District an acceptance, under seal, by your sureties of all of the terms and conditions hereinbefore recited, to the end that your bond for the faithful performance of the work may be and remain in full and binding force and effect. If you accept the terms of this adjustment please sign the two copies hereof transmitted herewith.

Yours truly,

(Signed) ISHAM RANDOLPH,
Chief Engineer.

We accept the foregoing order and will be bound by its terms.

(Signed) GRIFFITHS & MCDERMOTT.

"CHICAGO, July 12, 1899.

To the McArthur Brothers Company, Contractors and Assignees of the Scherzer Rolling Lift Bridge Company:

GENTLEMEN—Whereas, the said The Scherzer Rolling Lift Bridge Company, contractors, did on the 9th day of August, 1898, contract with the Sanitary District of Chicago for all of the materials, workmanship and erection of an eight-track bridge structure over and across its Main Channel on the line of Campbell Avenue, in the City of Chicago; and,

WHEREAS, With the knowledge and consent of the said Sanitary District of Chicago the said The Scherzer Rolling Lift Bridge Company has assigned, transferred and conveyed, by a proper instrument in writing, that part of said contract covering the supplying of all materials and labor and performing all of the substructure work, excavating for foundations, enlargement of channel and all work collateral thereto, being the substructure work under said contract, and authorizing the Sanitary District to pay to you and you to receive all moneys due or to become due on account of the said substructure work segregated by the said assignment from the entire work covered by the aforesaid contract of August 9, 1898; and,

WHEREAS, The Sanitary District of Chicago urgently needs the completion of the said substructure and all of the work collateral thereto on or before December 1, 1899; and,

WHEREAS, It will be necessary for the said contractors, assignees of said contract, to make extraordinary exertions to complete the work within the period remaining between the date hereof and December 1st; and,

WHEREAS, The methods which must be resorted to for executing the work and prosecuting the same, both night and day, entail a great increase of cost to the contractors, making a large increase in the equipment of machinery and appliances, employing labor at times and under conditions which increase the cost and the storage of large quantities of material at points from which it must be rehandled at great expense to place it in the work; and,

WHEREAS, All of these questions have been discussed before the Engineering Committee of the Board of Trustees; and,

WHEREAS, It has been conditionally agreed that the sum to be paid to McArthur Brothers Company for carrying on the work under the conditions named, and completing the same on or before December 1, 1899, shall be the sum of one hundred and twenty thousand dollars ($120,000.00), and also conditioned upon the agreement, on the part of the said Sanitary District, that it will also furnish and deliver to you upon the said work all the necessary Portland cement for making mortar and concrete, as you may require it, at a cost to you not in excess of two dollars ($2.00) per barrel. All cement so furnished you to be charged against you as used on your current monthly estimates as the same are issued, and in the event that the said Sanitary District shall hereafter elect to allow you to furnish said cement, then you will be paid ten thousand dollars ($10,000.00) in addition to said sum of one hundred and twenty thousand dollars ($120,000.00), in the same manner, in lieu of said cement.

Now, therefore, I, as Chief Engineer

of the Sanitary District of Chicago, hereby direct you to proceed to perform and carry out all of the provisions of the aforesaid contract of August 9, 1898, to you assigned by the said, The Scherzer Rolling Lift Bridge Company, and to complete the same on or before December 1, 1899, and I fix the compensation for the extra exertion and expense to you involved, and for the release of all claims for damages on the said substructure work under the said contract by the said, The Scherzer Rolling Lift Bridge Company, at the sum of one hundred and twenty thousand dollars ($120,000.00), which sum shall be paid to you in excess of the prices provided in your said contract in monthly sums, on the 10th and 25th days of each and every month, pro-rated on the volume and value of the work performed to the full value of the completed substructure work, and will also, in case the said Sanitary District shall so elect on or before five days from the date hereof, furnish and deliver to you upon the said work all the necessary Portland cement for making mortar and concrete as you may require, at a cost to you not in excess of two dollars ($2.00) per barrel, to be charged against you as it is used on your current monthly estimates; and in the event the said Sanitary District shall not elect, within five days hereafter, to furnish you the said cement, in the manner herein provided, then you shall be paid ten thousand dollars ($10,000.00), in addition to said sum of one hundred and twenty thousand dollars ($120,000.00), in lieu of all of the said cement at the said price. Which said moneys shall be received by you in the manner stated, in full compensation for all losses, damages or claims which have accrued to you in the past and which may arise in the future prosecution of this work under your said contract upon the said substructure work due to causes hereinbefore stated. Provided, however, that you shall immediately proceed to deliver the materials and equip the work with such machinery, and employ such a force of men as will insure the completion of all the said substructure work covered by your said contract on or before the said 1st day of December, 1899.

If, however, you fail to make such progress as, in the judgment of the Chief Engineer, will insure the completion of said work on or before said December 1st, 1899, then he, the said Chief Engineer, shall, in writing, notify you that, in his judgment, you should increase the force of men and the equipment of machinery, one or both, and in such written notification shall specify what he requires of you to so expedite the work; and if, at the expiration of ten days, you shall have failed to comply with his requirements, as stated to you in writing, then he shall at once, without further notice to you, have power to enter upon said work and place thereon such tools and appliances, in addition to the equipment which you shall have upon the work at that time, and employ such men and procure such materials as, in his judgment, shall be necessary to complete the work within the time specified herein and charge the same to your account. Save as herein set forth and in the consent of the District to the said assignment of the said substructure work the contract of August 9, 1898, shall be and remain in full force and effect in so far as the same pertains to the substructure work. This order is given, subject to the approval and confirmation by the Board of Trustees of the Sanitary District of Chicago.

To avail yourselves of this adjustment, you, the said McArther Brothers Company, must file with the Clerk of this District the consent, under seal by the Surety Company of the said The Scherzer Rolling Lift Bridge Company, under the said contract of August 9, 1898, to the said assignment, to the end that their said bond for the faithful performance of the work may be and remain in full and binding force and effect.

If you accept the terms of this adjustment, please sign the two copies hereof transmitted herewith.

Yours truly,

(Signed) ISHAM RANDOLPH,
Chief Engineer.

We accept the foregoing order and will be bound by its terms, if we shall be paid for the work in the time and manner therein provided.

(Signed) *McArthur Brothers Co.*
By A. MCARTHUR,
President.

Assignees of the said The Scherzer Rolling Lift Bridge Company."

ADJOURNMENT.

On motion of Mr. Smyth, seconded by Mr. Braden, the Board then adjourned.

Joseph F. Haas
Clerk.

PROCEEDINGS

—OF THE—

BOARD OF TRUSTEES

—OF THE—

SANITARY DISTRICT OF CHICAGO.

JULY 19, 1899.

OFFICIAL RECORD.

Published by authority of the Board o Trustees of the Sanitary District of Chicago.

REGULAR MEETING.

The four hundred and forty-seventh regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Wednesday, July 19, 1899, at 2 o'clock P. M.

On roll-call Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Mallette and Smyth—seven members, were present.

President Boldenweck then called the Board to order.

MINUTES.

The minutes of the regular meeting held July 12, 1899, were approved as printed, on motion of Mr. Mallette, seconded by Mr. Jones.

*VOUCHERS.

The Clerk presented the following vouchers :

PAY ROLLS.

*General Account (streams examination, June, 1899)	$ 87 08	
*General Account (general roll, July 15, 1899)	228 00	
		$ 315 08

GENERAL ACCOUNT.

C. Hoover (streams examination)	$ 8 00	
Wm. J. Bohm (streams examination)	31 50	
*Edwin O. Jordan (streams examination)	368 55	
*Arthur W. Palmer (streams examination)	396 59	

Emil Appel (streams examination)	$ 36 18	
John E. Thorne (streams examination)	8 10	
Geo. Brooks (streams examination)	18 00	
*Henry Atkins (streams examination)	56 55	
B. F. Robinson (streams examination)	13 10	
John C. Spink (streams examination)	5 35	
American Express Company (streams examination)	33 61	
D. H. Jansen (streams examination)	6 00	
Frank Jones (streams examination)	15 00	
Peoria Water Works Company (streams examination)	8 00	
James McCune (streams examination)	13 80	
W. H. Fraser, M. D. (streams examination)	38 00	
Dennis Foley (streams examination)	10 55	
James Mack (streams examination)	7 75	
R. P. Elliott (streams examination)	5 00	
Harry Hudson (stream examination)	12 60	
P. W. O'Brien (streams examination)	10 40	
Arthur R. Reynolds (streams examination)	6 60	
Boyd & Co. (streams examination)	35 02	
Weber Bros. Metal Works (streams examination)	8 50	
C. H. Rice (streams examination)	20 00	
Bausch & Lomb Optical Company (streams examination)	19 50	
*E. H. Sargent & Co. (streams examination)	102 55	
American Express Company (streams examination)	26 87	
*United States Express Company (streams examination)	161 75	
*Capt. F. R. McGregor (sundry expenses)	182 63	
*Joseph F. Haas, Clerk (sundry expenses)	618 66	
		$ 2,284 71

*CONSTRUCTION ACCOUNT.

The Scherzer Rolling Lift Bridge Company (Section O, July 15, 1899)	$ 3,062 50	
Geo. M. Huss (temporary Pan Handle Bridge, Section O)	573 05	
Schultz Bros. (temporary Pan Handle Bridge, Section O)	600 00	
Chicago Star Construction and Dredging Company (temporary Pan Handle Bridge, Section O)	170 38	
A. T. Wilcox (temporary Pan Handle Bridge, Section O)	90 02	
Lammert & Mann (pumping plant, Section O)	125 00	
Weir & Craig Manufacturing Company (pumping plant, Section O)	103 37	
Hayes Bros. (pumping plant, Section O)	169 15	
Hayes Bros. (pumping plant, Section O)	510 37	
Geo. M. Huss (pumping plant, Section O)	136 72	
Hayes Bros. et al. (Section N, July 15, 1899)	4,470 24	
Gahan & Byrne (Section G. July 15, 1899)	3,318 28	
Halvorson, Richards & Co. (Section E, July 15, 1899)	1,088 72	
C. T. T. R. R. Co. (Taylor Street Bridge)	3,820 87	
Postal Telegraph Cable Company, (A., T. & S. F. Ry. Co.'s Bridge, Main Channel, Section G)	600 00	
Isham Randolph (Lyons-Summit Bridge, Main Channel, Section G)	15 00	
Heldmaier & Neu (C. T. T. R. R. Co.'s Bridge, Desplaines River, Section E)	748 35	
C. L. Strobel (Romeo Highway Bridge, Section 12)	5,996 00	
Christie & Lowe (Section K, July 15, 1899)	800 00	
Heldmaier & Neu (Section 17, July 19, 1899)	7,500 00	
		$33,898 02
Grand total		$36,497 81

* To be paid by warrants, with interest coupons attached, drawn against the Tax Levy for 1899.

Mr. Carter, seconded by Mr. Smyth, moved that the vouchers as read and shown above be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart. (*except as to voncher in favor of Joseph F. Haas, Clerk, tor $618.66, on which he voted nay*), Jones, Mallette and Smyth—seven (*except as above stated*). Nays—none (*except as above stated*).

Upon this result the President declared the motion carried.

REQUISITION.

The Clerk presented the following requisition:

No. 593 Engineering Department (quarterly supplies) $405 00

Mr. Braden seconded by Mr. Eckhart, moved that Requisition No. 593, as read and shown above, be allowed.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Mallette and Smyth—seven. Nays—none.

Upon this result the President declared the motion carried.

WEEKLY REPORT ON EMPLOYES.

The Clerk presented a report, in accordance with the Rules, showing the number of persons in the employ of the District for the week ending July 15, 1899, which was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, July 19, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the week ending July 15, 1899, as the same have been reported to me:

Engineering department.....	82
Maintenance account.....	15
Clerical department.....	5
Law department.....	8
Treasury department.....	1
Police department.....	28
General.....	9
Total employes.....	148

Respectfully submitted,

Signed) JOSEPH F. HAAS,

Clerk."

REPORT IN REFERENCE TO EXECUTION OF AGREEMENT WITH A., T. & S. F. RY. CO. FOR CONSTRUCTION OF CERTAIN TEMPORARY EMBANKMENT, TRACKS AND CROSSINGS.

The Clerk presented and read a report transmitting the agreement with the A., T. & S. F. Ry. Co. for construction of certain temporary embankment, tracks and crossings, the report setting forth that said agreement has been duly executed by said company and also by the President and Clerk, as authorized by the Board at the meeting held May 31, 1899 (page 5838 of the Proceedings), and a duplicate copy of same delivered to said company, and therefore recommending that said agreement be printed and placed on file.

On motion of Mr. Jones, seconded by Mr. Carter, the report was ordered received, printed and placed on file by unanimous consent.

The following is

THE REPORT.

"CHICAGO, July 19, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I herewith transmit the agreement dated April 29, A. D. 1899, between the Atchison, Topeka and Santa Fe Railway Company and the Sanitary District of Chicago, in reference to the construction of certain temporary embankment, tracks and crossings, the same having been duly executed by the said railway company and also by your President and Clerk, as authorized by the Board of Trustees at the meeting held May 31, 1899 (page 5838 of the Proceedings), and a duplicate copy of same, duly executed, delivered to said company; and I therefore recommend that said agreement be printed and placed on file.

Respectfully submitted,

(Signed) JOSEPH F. HAAS,

Clerk.

The following is

THE AGREEMENT:

"AGREEMENT, Made this twenty-ninth day of April, A. D. 1899, by and between The Atchison, Topeka and Santa Fe Railway Company, a corporation organized and existing under the laws of the State of Kansas (hereinafter for convenience designated the "Atchison Com-

pany"), *party of the first part*, and The Sanitary District of Chicago (hereinafter for convenience designated "The District"), *party of the second part*.

WHEREAS, The Atchison Company controls and operates a line of railroad in the City of Chicago, a portion of which is shown on the sketch or blue print hereunto annexed marked "Exhibit A" and made a part hereof; and,

WHEREAS, Said line of railroad of the Atchison Company is crossed on Campbell Avenue south of Thirty-second Street as shown on said "Exhibit A" by the tracks of the Chicago, St. Louis and Pittsburg Railway Company (hereinafter, for convenience, designated the "Pan Handle Company"); and

WHEREAS, The District is constructing its certain Drainage Canal in the vicinity of and parallel, or nearly parallel, and north of the said line of road of the Atchison Company; and in connection with said Drainage Canal is constructing certain bridges and approaches thereto and across said Drainage Canal; and,

WHEREAS, Safety and convenience in prosecuting its work make it desirable that said District may temporarily divert the traffic of the Pan Handle Company from its present tracks to temporary tracks, partially shown and indicated on said Exhibit A by dotted lines, so that said temporary tracks will cross said line of road of the Atchison Company at a point west of the westerly line of said Campbell Avenue; and

WHEREAS, In order to construct said temporary tracks, it will be necessary for said District to construct an embankment on that portion of the right of way of the Atchison Company, designated on said Exhibit A by red coloring, and lay crossings and tracks on such embankment; and

WHEREAS, The District has requested the Atchison Company to permit it to construct such embankment and lay such temporary tracks and crossings on its property, as aforesaid, and to temporarily divert said traffic of the Pan Handle Company over the same as aforesaid, and the Atchison Company is willing to consent thereto upon the conditions hereinafter set forth;

Now, Therefore It is hereby agreed between the parties hereto as follows:

ARTICLE I.

The Atchison Company hereby gives to the District permission to construct an embankment, and two tracks and crossings therefor, on that portion of its right of way shown by red coloring on said Exhibit A; the alignment of said tracks to be as follows: Beginning at a point on the center line between tracks of the Chicago, St. Louis and Pittsburgh Railway, two hundred and thirty (230) feet southerly from its intersection with the center line of the south main track of the Atchison, Topeka and Santa Fe Railroad in Chicago; thence northerly and to the left on a curve or radius of four hundred and seventy-eight (478) feet to a point ten (10) feet southerly from the center line of south main track of said Atchison, Topeka and Santa Fe Railroad in Chicago; thence northerly at right angles to said Atchison, Topeka and Santa Fe Railroad in Chicago to the north line of said company's right of way; *provided*, that the entire cost and expense of making such change and construction shall be borne by the District.

ARTICLE II.

In consideration of the permission and right hereinbefore given, the District covenants and agrees as follows:

1. That it will with as little delay and as slight inconvenience as possible to the Atchison Company, construct such embankment and lay such tracks and crossings at its own expense, and without any costs or expenses whatsoever to the Atchison Company, and that it shall and will at its own expense and without any costs or expenses whatsoever to the Atchison Company make any changes in the interlocking plant at Ash Street (commonly called Ash Street Interlocking Plant), that may become necessary by reason of the construction of such embankment, tracks and crossings.

2. That on or before the expiration of one year from the date of these presents, it will, at its own cost and expense, and without any costs or expenses whatsoever to the Atchison Company, remove said tracks and said crossings and restore said Pan Handle traffic to its present tracks as it is now carried on on Campbell Avenue, and will remove said temporary embankment from the right of way of the Atchison Company, and will leave said tracks and right of way of the Atchison Company in the same condition in which they are at the date of these presents, and will make all necessary changes in the interlocking plant at Ash Street to restore it to its present condition.

ARTICLE III.

For the considerations aforesaid the District further covenants and agrees to and with the Atchison Company that it will indemnify and save harmless said Atchison Company of and from all costs, charges, expenses, damages, injuries and losses of every name and nature which may accrue to it or for which it may become liable by reason of the exercise of the permission or rights or any of the rights hereby given by the Atchison Company to the District; and in case at the expiration of said year said District shall not remove said tracks and crossings and restore said Pan Handle traffic to its present tracks and remove said embankment and do all necessary things to restore the Atchison Company to its original estate and condition in every particular, then, and in that case, the Atchison Company may do all acts necessary to so restore itself, and in such case the District will, on demand, repay the Atchison Company all its costs and expenses of whatsoever nature, caused by reason of any such action it may take.

ARTICLE IV.

1. It is mutually covenanted and agreed by and between the parties hereto that any failure on the part of the District to comply with any of the covenants or conditions herein contained shall forthwith work a full and complete forfeiture of the permission and license hereby given, together with all the rights and privileges thereof, and the same shall forthwith cease; and no act or failure to act on the part of the Atchison Company shall be construed as a waiver of any forfeiture provided for herein.

2. That this license is without any consideration whatever moving to or for the benefit of the Atchison Company, but is for the sole benefit of the District, and the same is accepted by the District upon and subject to all the covenants and conditions herein contained.

ARTICLE V.

This agreement and each of the covenants and conditions thereof shall inure to the benefit respectively of the successors and assigns of the Atchison Company, and shall be binding upon the successors and assigns respectively of the District.

In Witness Whereof, The parties hereto have executed this instrument the day and year first above written.

The Atchison, Topeka and Santa Fe Railway Company,

By E. P. RIPLEY,

President.

Sanitary District of Chicago,

By WILLIAM BOLDENWECK,

President.

Attest:

JOSEPH F. HAAS, [SEAL]

Clerk of the Sanitary District of Chicago."

REPORT IN REFERENCE TO CLAIMS FOR EXTRA COMPENSATION BY CONTRACTORS ON SECTION O.

The Clerk presented a report from the the Chief Engineer in reference to certain claims for extra compensation by Messrs. McMahon & Montgomery Company et al., contractors for Section O, which on motion of Mr. Jones, seconded by Mr. Smyth, was ordered received, printed and placed on file, by unanimous consent.

The following is

THE REPORT:

"CHICAGO, July 14, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Taking up the claim for "extra compensation" under their contract for Section "O," made by McMahon and Montgomery Company et al., as set forth in their communication addressed to me under date of February 6, 1899, I have to report as follows:

On March 13, 1899, I addressed the folfowing letter to Geo. Burry, Attorney for McMahon and Montgomery Company et al.

"Your reply on behalf of your clients, Messrs. McMahon and Montgomery Company et al. to my letter of the 3rd inst., has had my consideration; also I have read your letter to Mr. Chas. C. Gilbert, Attorney of our Board. I am prepared to adjudicate all claims made under contracts which I have to administer and to do equal justice to all parties to these contracts. I therefore call upon you to present such facts and arguments as you have to offer in support of these claims for my consideration on Thursday March 16th. If you appear for your clients the

Attorney of this District will represent its interests.

Yours truly,

ISHAM RANDOLPH,

Chief Engineer."

No recognition was ever accorded this communication; therefore, as these contractors decline to show cause why their claims should be paid, I must pass upon them in the light of facts to me personally known, and I now submit my findings and award.

The contract for this section is dated May 16, 1894; the time fixed in the contract for completing the work was May 31, 1896. At that date only 46 per cent, approximately, had been completed; hence, on the motion of either party to the contract, assigning sufficient cause therefor, it could have been abrogated, and the responsibility could have been fixed for the default. Neither the Sanitary District nor the contractors saw fit to make any such issue, and by mutual acts the contract has been perpetuated, the second party performing work and accepting orders from the proper officer of the first party, and the first party paying for such work and taking receipts from the second party in the manner prescribed by the contract. Thus has the contract been perpetuated and each party thereto is bound thereby to the other party.

One of the provisions of this contract, viz. Clause "D," Section 7a, third paragraph reads: "And, further, it is understood and agreed that no work shall be done upon any portion of the line covered by this contract which, in the judgment of the Chief Engineer, should be kept free and unincumbered, pending the adjustment of any question or questions affecting the relations of this District with the municipality of Chicago, the Board of Park Commissioners, or any railway company or corporation, growing out of the readjustment of streets, highways, boulevards, or railway tracks, until such time as the said Chief Engineer shall, in writing, order the contractor to proceed upon the portions exempted as above," clearly indicating to the second party that the first party had reason to anticipate delays growing out of the complications suggested therein.

This clause bears upon the first of the seven claims preferred by the second party in their letter of February 6th, hereinbefore cited.

This claim reads as follows:

"Damages sustained in consequence of detentions, delays and hindrances, resulting from the actions of the Sanitary District of Chicago, in performance of our contract with this District as to Section "O"—$225,000."

This is not according to the contract, nevertheless the Chief Engineer recognizes a principle of equity underlying this claim, but the amount of it, unsustained by proof of any kind, appears to him entirely beyond the bound of reason or justification.

Claim No. 2, reads as follows:

"Compensation for excavation of material originally outside the prism lines, made necessary by the action of the Board, or otherwise, estimated $25,000."

This claim the Chief Engineer disallows, for the reason that he includes in his final estimate on this section all excavated material to which these contractors are entitled under the most liberal construction of their contract.

Claim No. 3 reads as follows: "Interest at the legal rate on the 12½ per cent reserved by the District under the contract, from the time when it would have been payable under the terms of the contract, but for the acts of the District, until the time when it shall be paid (say February, 1899) estimated at $7,000."

Through the mutual acts of the parties to the contract extending its life, as hereinbefore recited, the Chief Engineer is unable to say when this reserve should have fallen due, but it is through the failure of the second party to accept the order of the Chief Engineer that this percentage was not paid about one year ago. In support of this statement see letter of January 20, 1898:

"Messrs. McMahon & Montgomery Company et al.—Gentlemen: Following up the conversation had with the members of your firm and associates of the Illinois Dredging Company, I brought the subject then under discussion before our Trustees, in session as the Engineering Committee, and have their sanction to the plan outlined by me, namely, that you dismantle the dredges, now in the channel of Section "O" west of the railroads, sufficiently to get them through the opening now existing, and that you bring them out to free water along with all tugs, barges, scows or other machinery in said channel west of the railroads, this District to pay you the cos

of the proposed dismantling and removal. This done, we will measure up the section and pay you in full for all work done thereon, including the reserved percentage now held by us. You may then, at your option, complete the excavation of the point of land where the Sanitary District Channel connects with the West Fork of the South Branch of the Chicago River upon the same terms as set forth in your contract for Section "O." You must, however, advise us promptly of your election in regard to said excavation.

As I was left at the close of the conference on Tuesday with the understanding that the adjustment herein proposed would be acceptable to all of the gentlemen then present, I make the foregoing an order and ask your acceptance of the same on duplicate hereof enclosed."

Claim No. 4 reads as follows: "Increased compensation for excavation on the Main Channel of Section "O," west of the narrow cut at Western Avenue, estimated $5,000."

This claim is without specifications or evidence of its validity, and, in the judgment of the Chief Engineer, should not be allowed. He further states that the second party in 1895 made claim for extra compensation on account of making a pilot cut across the Southwest Boulevard and Western Avenue, and that the Chief Engineer recognized the equity of the claim and allowed in full settlement thereof 42 cents per cubic yard in excess of the contract price for all material involved in this excavation, amounting to 9,487 cubic yards, which, at the price agreed upon, made the sum of $3,984.54, covered by estimate voucher dated March 20, 1896, and paid.

Claim No. 5 reads as follows: "Compensation for excavation at Campbell Avenue, ordered by the Chief Engineer, July 11, 1898, estimated $11,000."

The facts in this case are that, as stated, the Chief Engineer did on July 11, 1898, acting under the authority vested in him by Section 15 of Clause "D" of the contract hereinbefore cited, order these contractors to build certain coffer dams and to make certain excavation within the lines of the rights of way of the three railway companies crossing the Main Channel of this District on the line of Campbell Avenue, fixing $2,000 as the lump sum price to be paid for the coffer dams and 45 cents per cubic yard to be paid for the earth excavation. The time fixed for the completion of this work was October 10, 1898. The coffer dams were completed and paid for. Through the inability of the first party to secure the abandonment of the railroad tracks which encumbered this right of way, the second party was unable to complete the work within the time fixed for so doing, and when freezing weather set in, claim was made for an advance in price, the equity of which was recognized by the Chief Engineer, and he suggested advancing the price to 60 cents which, in his judgment, fully covered the extra cost of doing the work in winter weather. This price was not accepted by the second party, who made claim for 90 cents per cubic yard for the work. The Chief Engineer advanced his offer to 70 cents which the second party refused. This left the Chief Engineer free to offer the work to others. He then offered it to the Scherzer Rolling Lift Bridge Company, which company held the contract for the bridge to be erected at this point. This company accepted the offer, and the Chief Engineer awarded the work to them at 70 cents per cubic yard. In view of these facts it is apparent that the second party refused the work at a larger margin of profit than was afforded by the original award to them—they having first refused to proceed under the original award—and hence they cannot in equity claim a profit on work which they refused to perform; therefore this claim is disallowed.

Claim No. 6 reads as follows: "Compensation for dismantling and remantling machines under orders from the Chief Engineer, $1,278.87."

This claim is right and just and is allowed by the Engineer, and has been paid.

Claim No. 7 reads as follows, "The reserved 12½ per cent, about $42,000."

This claim is superfluous as it is cared for in the final voucher for this section, the correct amount being $50,059.65, as per said final voucher.

SUMMATION OF CLAIMS AND RULINGS.

No. 1.	An underlying principle of equity is recognized, but the amount claimed is unreasonable..	$225,000 00
No. 2.	Disallowed.....	25,000 00
No. 3.	Disallowed.....	7,000 00
No. 4.	Disallowed.....	5,000 00
No. 5.	Disallowed..... ...	11,000 00
		$273,000 00

No. 6. Allowed.....	$ 1,278 87
No. 7. Covered by final estimate.....	50,059 65
	$ 51.338 52

Respectfully,

(Signed) ISHAM RANDOLPH,
Chief Engineer."

REPORT IN REFERENCE TO DISMISSAL OF SUITS AGAINST PAUL REDIESKE, COLLECTOR.

Mr. Carter, Chairman, presented, and the Clerk read, a report from the Committee on Finance in reference to the suit or suits heretofore instituted by the District against Paul Redieske, former Collector of the Town of North Chicago, for the amount of certain taxes due from said town, the report setting forth that the amount due has been settled, except the sum of $180.00, recently handed to the District, and recommending that the Attorney of the District be authorized and directed to enter into a stipulation dismissing the suits heretofore instituted against said Collector and take such other proceedings as deemed just and proper by said Attorney.

Mr. Carter, seconded by Mr. Eckhart, moved that the report be adopted and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Mallette and Smyth—seven. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, July 10, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—The Committee on Finance reports that the Committee has had under consideration the subject matter of the suit instituted by the District against one Paul Redieske, former Collector for the Town of North Chicago, for the purpose of obtaining for the District certain amounts of taxes due to it from said Town of North Chicago; that settlements have been made heretofore in said cases in full satisfaction of the amounts due to the District, except in the sum of one hundred and eighty dollars ($180.00), and that said sum has recently been handed to the District in the form of the check herewith presented. Inasmuch as this tends to close and liquidate all the indebtedness of the said Town of North Chicago as far as the District is concerned, the Committee recommends as follows:

That the Attorney of the District be and is hereby authorized and directed to enter into a stipulation on behalf of the District dismissing the suits heretofore instituted by it against the said Collector of the Town of North Chicago, and to take such further proceedings toward that end as he may deem just and proper.

Respectfully submitted,

(Signed) Z. R. CARTER,
Chairman.
B. A. ECKHART,
FRANK WENTER,
ALEX. J. JONES,
Committee on Finance."

(Two enclosures.)

REPORT IN REFERENCE TO RELEASE OF BOND ON CONTRACT FOR SECTION 15.

Mr. Carter, Chairman, presented, and the Clerk read, a report from the Committee on Finance with reference to, and accompanied by, a communication from Messrs. Wright, Meysenburg, Sinclair & Carry, contractors on Section 15, requesting the release of the surety on the bond for $5,000, given by them on account of contract on said section, the report recommending that the surety on said bond be released from further liability, the contractors however to remain liable thereon.

Mr. Carter, seconded by Mr. Jones, moved that the report be adopted and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Mallette and Smyth—seven. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, July 17, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Your Committee on Finance herewith report that it has received a communication from Messrs. Wright, Meysenberg, Sinclair & Carry,

contractors on Section 15, requesting the release of the surety on the bond of five thousand ($5,000) dollars given by them on account of the contract on said section, approved June 15, 1898, (page 4890 of the Proceedings).

The Committee advises that it has made a careful examination as to the status of said contractors with reference to said section and find that said section was finally inspected by the Chief Engineer on December 28, 1896, and a final voucher drawn January 21, 1897, and that a final certificate was awarded to said contractors February 3, 1897, (page 3815 of the Proceedings), and that said contractors were fully paid upon said certificate, and as your Committee is informed that there are no claims now pending or unsettled as to said work and as all mechanics' liens and personal injury suits have been barred by the statute of limitations, the Committee advises that the surety on said bond now on file, in the sum of five thousand ($5,000) dollars, be released from further liability thereon (the contractors, however, to remain liable thereon).

Respectfully submitted,

(Signed) Z. R. CARTER,
Chairman.
B. A. ECKHART,
ALEX. J. JONES,
Committee on Finance."

(One enclosure).

REPORT IN REFERENCE TO ADVANCE PAYMENT ON ACCOUNT OF STREAMS EXAMINATION.

Mr. Smyth, Chairman, presented, and the Clerk read, a report from the Committee on Engineering in reference to a certain communication from Dr. A. R. Reynolds requesting an advance of $300 per month to defray sundry expenses of the District in the matter of streams examination, the report recommending that the President and Clerk be authorized to pay said amount per month to A. R. Reynolds, Commissioner of Health of the City of Chicago, the same to be used in behalf of the work in hand concerning the District, until the further order of the Board.

Mr. Smyth, seconded by Mr. Mallette, moved that the report be adopted and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Mallette and Smyth—seven. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

CHICAGO, July 19, 1899.

To the Honorable the Board of Trustees of Sanitary District of Chicago:

GENTLEMEN—The Committee on Engineering having received communications hereto attached from Dr. Arthur R. Reynolds, Commissioner of Health of the City of Chicago, requesting an advance of three hundred dollars per month to defray expense of Sanitary District, the Committee, therefore, recommends that the President and Clerk of the District be authorized to pay on behalf of the District to Arthur R. Reynolds, Commissioner of Health of the City of Chicago, the sum of three hundred dollars per month, and that they be directed to use the same in behalf of the work in hand concerning the District, and until further order of the Board in the premises.

Respectfully submitted,

(Signed) THOMAS A. SMYTH,
Chairman.
J. P. MALLETTE,
ALEX. J. JONES,
Z. R. CARTER,
B. A. ECKHART,
J. C. BRADEN,
WM. BOLDENWECK.
Committee on Engineering."

(Two enclosures.)

REPORT IN REFERENCE TO COMPLETION OF CONTRACTS FOR SUPERSTRUCTURES OF WILLOW SPRINGS, LEMONT, AND SUMMIT AND LYONS HIGHWAY BRIDGES CROSSING MAIN CHANNEL.

Mr. Smyth, Chairman, presented, and the Clerk read, a report from the Committee on Engineering in reference to and accompanied by the final certificates of the Chief Engineer as to the completion of the contracts with C. L. Strobel for the superstructure of the Willow Springs Highway Bridge crossing the Main Channel on Section 1; the superstructure of the Lemont Highway Bridge crossing the Main Channel on Section 8;

and the superstructure of the Summit-Lyons Highway Bridge crossing the Main Channel on Section F; the report recommending that the President and Clerk be authorized and directed to make final payment to said Strobel in the aggregate sum of $5,604.17, the total sum found to be due said contractors upon the certificates mentioned, upon the execution of a receipt and release in full of all claims arising out of said contracts.

Mr. Smyth, seconded by Mr. Braden, moved that the report be adopted and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Mallette and Smyth—seven. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, July 17, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—The Committee on Engineering desires to report that the Chief Engineer has awarded final certificates to C. L. Strobel for work done under his contracts, dated August 24th, 1898, for the superstructure of the Willow Springs Highway Bridge on Section 1, and for the superstructure of the Lemont Highway Bridge on Section 8, in the sum of two hundred and fifty dollars ($250.00) each; and also to said C. L. Strobel for work done under his contract of August 24th, 1898, for the superstructure of the Summit and Lyon Road Bridge on Section "F," in the sum of five thousand one hundred four and seventeen one-hundredths dollars ($5,104.17); that the Committee has examined each of said certificates and considered the subject matter of the completion of the work done under each of said contracts respectively and recommends as follows: That the President and Clerk of the District be authorized and directed to make final payment to said C. L. Strobel in the aggregate sum of five thousand six hundred four and seventeen one-hundredths dollars ($5,604.17), the total sum found to be due said contractor upon the certificates above mentioned, upon the execution of a receipt in favor of the District made by said contractor in full and releasing the District from any and all claims and demands of every kind and nature whatsoever under said contracts.

Respectfully submitted,

(Signed) THOMAS A. SMYTH,
Chairman,
J. P. MALLETTE,
B. A. ECKHART,
Z. R. CARTER,
J. C. BRADEN,
ALEX. J. JONES,
WM. BOLDENWECK,
Committee on Engineering."

(Three enclosures.)

The following are

THE FINAL CERTIFICATES OF THE CHIEF ENGINEER:

"CHICAGO, July 15, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I hereby certify that C. L. Strobel has completed all of the work covered by his contract dated August 24, 1898, for the superstructure of the Willow Springs Highway Bridge across the Main Channel on Contract Section 1, to the full satisfaction of the Chief Engineer, and in accordance with the terms of said contract with the Sanitary District. This certificate is given subject to any unaccrued or unmatured obligations imposed by the contract.

The following is a statement covering same:

Contract price for superstructure complete.	$14,990 00
Amount paid on previous estimates	14,740 00
Amount due and unpaid	$ 250 00

Respectfully submitted,

(Signed) ISHAM RANDOLPH,
Chief Engineer."

"CHICAGO, July 15, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I hereby certify that C. L. Strobel has completed all of the work covered by his contract dated August 24, 1898, for the superstructure of the Lemont Highway Bridge across the

Main Channel on contract Section 8, to the full satisfaction of the Chief Engineer, and in accordance with the terms of the said contract with the Sanitary District. This certificate is given subject to any unaccrued or unmatured obligations imposed by the contract.

The following is a statement covering same:

Contract price for superstructure complete	$14,990 00
Amount paid on previous estimates	14,740 00
Amount due and unpaid	$ 250 00

Respectfully submitted,

(Signed) ISHAM RANDOLPH,
Chief Engineer."

"CHICAGO, July 15, 1899.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I hereby certify that C. L. Strobel has completed all of the work covered by his contract dated August 24, 1898, for the superstructure of the Lyons-Summit Road Bridge over the Main Channel on contract Section "F," to the full satisfaction of the Chief Engineer and in accordance with the terms of the said contract with the Sanitary District. This certificate is given subject to any unaccrued or unmatured obligations imposed by the contract.

The following is a statement covering same:

Contract price for superstructure complete	$12,620 00
To 1,605 lbs. extra steel at 3½c.	56 17
Total	$12,676 17
Amount paid on previous estimates	7,572 00
Amount due and unpaid	$ 5,104 17

Respectfully submitted,

(Signed) ISHAM RANDOLPH,
Chief Engineer."

PURCHASE OF PORTLAND CEMENT.

Mr. Smyth presented, and seconded by Mr. Carter, moved the adoption of the following

ORDER:

"*Ordered*, That the President of the District be directed to purchase, upon the best terms which he can secure, from ten to thirteen thousand barrels of Portland cement, of such brand and quality as will conform to the specifications of the Sanitary District for use in the construction of the substructure of the Campbell Avenue Bridge."

On roll-call on the motion for the adoption of the order the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Mallette, and Smyth—seven. Nays—none.

Upon this result, the President declared the motion carried.

INSPECTION OF MAIN CHANNEL BY DEMOCRATIC NATIONAL COMMITTEE.

Mr. Jones stated that a meeting of the Democratic National Committee was to be held in the city on Thursday, July 20th, and suggested that as this Committee was composed of gentlemen of influence from all over the United States, it might be wise and proper to ask the Committee to become the guests of the Sanitary District on a visit of inspection down the Drainage Canal. He moved that an invitation be extended to the Committee to visit the Drainage Channel, and that a Committee on Entertainment be appointed to be composed of three members with authority to secure a train and incur such other reasonable expenditures as might be necessary for the proper entertainment of the visitors.

On motion of Mr. Eckhart, seconded by Mr. Smyth, which motion was accepted by Mr. Jones, the entire matter was referred to the Committee on Engineering with full power to act, by a unanimous vote.

ADJOURNMENT.

On motion of Mr. Mallette, seconded by Mr. Smyth, the Board then adjourned.

Joseph F. Haas
Clerk.

PROCEEDINGS

—OF THE—

BOARD OF TRUSTEES

—OF THE—

SANITARY DISTRICT OF CHICAGO.

JULY 26, 1899.

OFFICIAL RECORD

Published by authority of the Board of Trustees of the Sanitary District of Chicago.

REGULAR MEETING.

The four hundred and forty-eighth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Wednesday, July 26, 1899, at 2 o'clock P. M.

On roll-call Messrs. Boldenweck, Carter, Eckhart, Jones, Kelly and Mallette six members, were present.

President Boldenweck then called the Board to order.

MINUTES.

The minutes of the regular meeting held July 19, 1899, were approved as printed on motion of Mr. Kelly, seconded by Mr. Mallette.

*VOUCHERS.

The Clerk presented the following vouchers :

LAW DEPARTMENT.

The Chicago Towel Supply Company (toweling)	$ 4 50	
The Waukesha Water Company (water)	7 50	
Samuel L. Hanks (ice)	10 00	
A. Hannibal (repairing chairs)	4 00	
Edward D. Conley (printing)	7 20	
The Gunthorp-Warren Printing Company (printing)	21 50	
Henry Gebhardt (fittings)	39 39	
*George Hingston (court proceedings)	100 95	
		$ 195 04

LAND ACCOUNT.

Chas. C. Gilbert (Will County taxes)			45 99

TREASURY DEPARTMENT.

S. P. Blount (expense)	$ 1 50		
Martin H. Kendig (printing)	18 75	$	20 25

GENERAL ACCOUNT.

Chicago Electric Company (repairing buzzer)	$ 1 20		
M. J. Kenny (keys)	3 00		
Moore & Janes, Agents (insurance)	9 67		
Henry E. Ackerburg (sundries)	10 00		
H. Masters (sundries)	15 00		
Santiago Cigar Company (sundries)	43 75		
Geo. B. Carpenter & Co. (boat furnishings)	12 00		
Thomas B. Banner (boat repairs)	19 26		
H. Lewis & Co. (oils)	19 90		
Walsh & Wyeth (pipe covering)	35 60		
Work Bros. & Co. (furnishings)	44 00		
Levi Bros. (meats)	8 36		
Orr & Lockett Hardware Company (hardware)	19 34		
L. Windmiller & Co. (supplies)	24 52		
*H. L. Regensburg & Co. (suplies	90 49		
*D. C. Deegan & Co. (supplies)	78 96		
*Grommes & Ulrich (supplies)	283 70	$	718 75

POLICE DEPARTMENT.

Thomas F. Ryan (coal)	$ 6 96		
Economy Light and Power Company (electric light fittings)	10 87		
E. J. Coen (expense)	46 50	$	64 33
Grand total		$	1,044 36

*To be paid by warrants with interest coupons attached, drawn against the Tax Levy for 1899.

Mr. Carter, seconded by Mr. Kelly, moved that the vouchers as read and shown above be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Carter, Jones, Kelly and Mallette—five. Nays—none. Excused and not voting—Mr. Eckhart—one.

Upon this result the President declared the motion carried.

REPORT IN REFERENCE TO EXECUTION OF AGREEMENT WITH THOMAS MOULDING COMPANY FOR PURCHASE OF CEMENT.

The President presented, and the Clerk read, a report transmitting an agreement with Thomas Moulding Company for the purchase of ten to thirteen thousand barrels of Portland cement, the report setting forth that said agreement has been duly executed by the President and Clerk in accordance with the action of the Board at the meeting held July 19, 1899 (page 5941 of the Proceedings), and a duplicate copy of same delivered to said company, and therefore recommending that said agreement be printed and placed on file.

By unanimous consent the report was ordered received, printed and placed on file.

The following is

THE REPORT:

"CHICAGO, July 26, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I herewith transmit an agreement dated July 24, 1899, between the Sanitary District of Chicago and Thomas Moulding Company for the purchase of ten to thirteen thousand barrels of Portland cement by the said District from said company, the said agreement having been duly executed by your President and Clerk in accordance with the action of the Board at the meeting

held July 19, 1899, (page 5941 of the Proceedings), and a duplicate copy of same delivered to said company; and I therefore recommend that said agreement be printed and placed on file.

Respectfully submitted,

WM. BOLDENWECK,
President."

The following is

THE AGREEMENT AND SPECIFICATIONS:

"This agreement, made and entered into this 24th day of July, A. D. 1899, by and between the Sanitary District of Chicago, party of the first part, and Thomas Moulding Company, party of the second part.

WITNESSETH, That the said party of second part has covenanted, contracted and agreed, and by these presents does covenant, contract and agree with the party of the first part for and in consideration of the payments to be made as provided herein, to the said party of the second part, to furnish and deliver to the said party of the first part from ten thousand to thirteen thousand barrels of Portland cement of the brand known to the trade as "Wolverine," subject to the following terms, conditions and specifications, which are made a part of this contract. The said cement, in sacks, to be delivered in carload lots, after inspection and acceptance by the representative of the first party, to any railroad in the City of Chicago which the first party may designate. The delivery to begin on or about the 10th of August, 1899, and to be continued at the rate of three hundred (300) barrels per day, subject to such variation in amount of daily delivery as may be agreed upon hereafter, by the first and second party. The second party is to advise the first party promptly upon arrival of consignments in carload lots in Chicago, of the yard and track on which the cars can be found by agents of the first party, and first party shall immediately procure such number of samples as shall be directed by its Chief Engineer and cause the same to be tested in the same manner that all other cements used in the work of the Sanitary District are tested, and upon ascertaining the results of such tests the Chief Engineer, or his representative, shall notify the second party of acceptance or rejection as determined by the tests. The usual tests are shown in the specifications for cement testing attached hereto and made a part thereof. In addition to the tests therein indicated the Chief Engineer may, at his discretion, cause chemical analysis to be made of the cement.

Failure to Supply—Should the party of the second part fail to supply the cement which will meet the requirements of the first party, as hereinbefore set forth, or fail to furnish the same in quantities to meet the requirements of the work based upon a daily consumption of three hundred barrels, then the first party shall be and is hereby authorized to purchase, wherever it can be secured, such cement as will pass the required tests, in such volume as may be needed to supply the default of the second party, and at such prices as it, the first party, may be obliged to pay, and all amounts so paid in excess of the price herein designated to be paid by the first party to the second party shall be deducted from any moneys due or to become due from the first party to the second party, and said excess shall be by the second party credited to the first party on its accounts. In the consideration of the performance by the second party of the foregoing provisions of this contract the first party will pay to the second party two dollars and eight cents ($2.08) per barrel for each barrel of cement accepted and received by it and will pay ten (10) cents per sack for each sack in which said cement is received, but for all empty sacks returned in good condition by the first party to the second party, the first party shall receive a credit of ten (10) cents per sack.

Time and Manner of Payments — For all accepted cement payment shall be made to the second party upon the voucher of the Chief Engineer, on or about the 10th and 26th day of each month for cement received since the date of the previous voucher, to the amount of eighty-five (85) per cent of the value thereof as fixed by this contract.

Final Payment — The second party further agrees that it shall not be entitled to demand or receive final payment until it shall have delivered all of the cement needed for the work, not however in excess of thirteen thousand (13,000) barrels nor until all money paid out by the first party, in procuring cement under the clause "Failure to Supply" of this contract shall have been refunded directly by the second party or taken out of the reserve of fifteen (15) per cent held by the first party to insure performance of the contract.

The terms and provisions herein con-

tained with reference to shipment and manufacture are subject to strikers of laborers over which the said party of the second part shall have no control.

In witness whereof, on the day and year first above written the Sanitary District of Chicago has caused this agreement to be signed by its President and attested by its Clerk and its corporate seal to be hereto attached, and the party of the second part has hereunto set their hands and seals.

(Signed) *The Sanitary District of Chicago,*

By WILLIAM BOLDENWECK,

President.

Attest:

JOSEPH F. HAAS, [SEAL]

Clerk.

Chicago, July 24, 1899.

Thomas Moulding Company,

[SEAL] THOMAS C. MOULDING,

President."

"SPECIFICATIONS FOR PORTLAND CEMENT.

Weight per cubic foot shall not be less than one hundred (100) pounds.

All lumpy, dirty or damaged cement shall be rejected; also damaged or short weight packages.

Tensile Strength—Neat, 400 pounds per square inch; 1 cement, 2 sand, 225 pounds per square inch; 1 cement, 3 sand, 175 pounds per square inch; 24 hours in air 6 days in water. A per cent of water necessary for plasticity in neat Portland cement briquettes. In sand mixtures, 1 cement, 2 sand, 11 per cent of water. One cement, 3 sand, 10 per cent water will apply to any Portland cement, the proportions should be a ratio by weight as cement to sand.

Hot Test—Pats with per cent of water enough for plasticity made on glass (about 5x4 inches) with clean, smooth surface and allowed to set hard for 24 hours, being covered meanwhile with a damp cloth, should be placed on a tray in the boiler while water is cold, and the fire started. Steaming process should be continued for four (4) hours and the pats lowered into boiling water for three (3) hours. If at the conclusion of the test the pats remain hard and sound, it is pretty conclusive evidence that there is no chemical defect. After breaking seven (7) day neat briquettes they should be subjected to boiling test, same duration as pats, and if they remain hard and sound at conclusion, it shows that there is no physical defect.

Setting Time—No initial set should take place in less than forty-five minutes or one hour.

Fineness, Nos. of seives...	50	80	100	200
Per cent required to pass.	90	95	92	75"

WEEKLY REPORT ON EMPLOYES.

The Clerk presented a report, in accordance with the rules, showing the number of persons in the employ of the District for the week ending July 22, 1899, which was read and by unanimous consent was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, July 26, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the week ending July 22, 1899, as the same have been reported to me:

Engineering department	84
Maintenance account	15
Clerical department	5
Law department	8
Treasury department	1
Police department	28
General	9
Total employes	150

Respectfully submitted,

Signed) JOSEPH F. HAAS,

Clerk."

REPORT IN REFERENCE TO ACCOUNT OF PAUL REDIESKE, COLLECTOR.

The Clerk presented and read a report setting forth that he has deposited with the Treasurer sundry sums of money heretofore received on account of Paul Redieske, Collector, aggregating the sum of $2,395.48, and requesting authority to make the necessary entry on the books of the District to close the account.

Mr. Jones, seconded by Mr. Eckhart, moved that the report be received and the authority requested therein granted.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Carter, Eckhart Jones, Kelly and Mallette—six. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT.

"CHICAGO, July 26, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN — Pursuant to the directions contained in the report of the Committee on Finance in re. Paul Redieske matter, adopted by your Honorable Body at its meeting held July 19, 1899 (page 5938 of the proceedings), I have deposited with the Treasurer of the District checks for $2,210.22, $5.26 and $180.00 respectively, accompanying the same, aggregating the sum of $2,395.48, which amount I have credited to the account of said Paul Redieske, Collector. After crediting this amount there is still standing to the debit of said account the sum of $3,490.49 which, in my judgment, should be charged back to Tax Account, and I respectfully request your authority to make the necessary entry on the books of the District.

Attached hereto is the receipt of the Treasurer for filing.

Respectfully submitted,

(Signed) JOSEPH F. HAAS,

Clerk."

SEMI-ANNUAL PROPERTY RETURN FROM LAW DEPARTMENT.

The Clerk presented a report from the Attorney transmitting the semi-annual property return from the Law Department for the half year ending July 1, 1899, which was read and by unanimous consent was ordered printed and, with accompanying property return, placed on file.

The following is

THE REPORT:

"CHICAGO, July 21st, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I have the honor to transmit the semi-annual report of personal property under the control of this department in Chicago and Joliet for the six months ending July 1, 1899.

Respectfully submitted,

CHARLES C. GILBERT,

Attorney."

(Accompanied by schedule).

MONTHLY REPORT FROM LAW DEPARTMENT.

The Clerk presented a report from the Law Department for the month of June, 1899, which was read and, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT.

"CHICAGO, July 25th, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I herewith submit the report of the Law Department for the month of June, 1899:

The following are the expenses and disbursements:

SALARIES.

Attorneys	$ 1,366 65	
Office force	400 00	
		$ 1,766 65

GENERAL EXPENSES.

Court costs	$ 108 00	
Right of way	125 00	
Expense account	331 95	
Legal services	776 66	
Books, printing and stationery	214 75	
		$ 1,556 36

LAND ACCOUNT.

Right of way acquired by condemnation in Will County	$ 2,410 00	
By purchase	150 00	
Rent of By-pass, Chicago River	58 34	
		$ 2,618 34
Total		$ 5,941 35

Much of the time of the department was occupied in the preparation of a petition to be presented to the Board of Review of Will County for the proper valuation of our lands and buildings.

An agreement between the Sanitary District of Chicago and David Oliver has been prepared providing that said Oliver shall deliver to the Sanitary District a quit-claim deed of all his interest in certain lands in the School District Addition to Joliet, the District to furnish certain power as a consideration for said transfer.

The following cases have been begun during the month:

Sanitary District of Chicago v. John L. Norton, in the Circuit Court of Will County. This is a petition for the condemnation of what is known as "The Paper Mill" property situated near Lockport.

The following cases have been disposed of during the month:

The case of Sanitary District of Chicago v. Alanson Sweet et al., was tried in the Circuit Court of Will County, and a verdict rendered for two thousand four hundred and ten dollars ($2,410.00), and judgment has been entered on the verdict.

The case of the Sanitary District of Chicago v. The American Stone Company was tried in the Circuit Court of Will County, and a verdict rendered for fourteen hundred dollars ($1,400.00), and judgment entered upon the verdict.

The property acquired by the above suits is situated in the City of Joliet.

In addition to the property condemned in the above suits, the Sanitary District obtained title to certain lots in the School Section Addition to Joliet from the American Steel and Wire Company by virtue of an agreement entered into with said company May 24th, 1899. Also a tract of land in Section 34, Township 36, Range 10 East of the Third Principal Meridian, near Lockport, from the Elgin, Joliet and Eastern Railway Company.

In the case of Charles Goerner vs. The Sanitary District of Chicago, in the Circuit Court of Cook County, General Number 166,547, arguments in reference to the pleadings and preparation for trial have engaged the attention of this department.

In the case of the Sanitary District of Chicago, appellant, vs. Bridget McGuirl, appellee, General Number 8469, in the Appellate Court for the First District of Illinois, additional abstracts and briefs have been filed on behalf of McGuirl, and reply briefs on behalf of the Sanitary District.

In addition to the above, the preparation of the agreement with the City of Chicago in reference to maintaining a pumping station at 75th Street, the preparation of the Committee reports, and the routine business of the office have occupied the time of the department.

Respectfully submitted,

(Signed.) CHARLES C. GILBERT,

Attorney."

REPORT IN REFERENCE TO RELEASE OF BOND ON CONTRACT FOR SUPERSTRUCTURE OF A., T. & S. F. BRIDGE ACROSS MAIN CHANNEL ON SECTION 8 AND ON CONTRACT FOR SUPERSTRUCTURE OF A., T. &. S. F. BRIDGE AT TWENTY-SIXTH STREET AT WEST END OF SECTION N.

Mr. Carter presented, and the Clerk read, a report from the Committee on Finance with reference to a reduction of the bond of the Carnegie Steel Company, Limited, on the contract for the superstructure of the A., T. & S. F. Ry. Bridge on Section 8, and also on the contract for the superstructure of the A., T. & S. F. Ry. Bridge at west end of Section N, the report being accompanied by a communication from the Carnegie Steel Company in reference to the matter, and also by communications from the City Trust Safe Deposit and Surety Company, heretofore presented and referred to that Committee at the meeting held July 12, 1899 (page 5923 of the proceedings), the report recommending that the sureties on the original bonds of $20,000 each be released (the contractors, however, to remain liable thereon), upon the execution and filing of two bonds in the sum of $2,000 each in lieu thereof, with surety company acceptable to the Committee on Finance and approved by the Board.

Mr. Carter, seconded by Mr. Eckhart, moved that the report be adopted and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Carter, Eckhart, Kelly and Mallette—five. Nays—none. Excused and not voting—Mr. Jones—one.

Upon this result the President declared the motion carried.

The following is

THE REPORT.

"CHICAGO, July 17, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Your Committee on Finance herewith reports that it has received a communication from the Carnegie Steel Company, Limited, contractors for the superstructure of the Atchison, Topeka and Santa Fe Railway Bridge on Section 8 at Lemont, and also the superstructure of the Atchison, Topeka and Santa Fe Railway Bridge at the west end of Section "N," requesting a reduction of the bonds originally given by said corporation on said bridges.

The Committee advises that it has made a careful examination as to the status of said contractor with reference to the work done upon each portion of said work above mentioned, and that the work upon the Atchison, Topeka and Santa Fe Railway Bridge at Lemont was finally completed in the month of May, 1899. That the final certificate of the Chief Engineer upon said bridge was awarded to said contractors on the 10th day of June, A. D. 1899, (page 5875 of the Proceedings), and said contractors were fully paid upon said certificate.

The work upon the Atchison, Topeka and Santa Fe Railway Bridge at Section "N" was completed in the month of May, 1899. That the final certificate of the Chief Engineer upon said section was awarded to said contractors on the 26th day of June, 1899, (page 5903 of the Proceedings), and that said contractors have not as yet accepted payment on said certificate.

The bonds remaining on file upon said bridges have never been reduced, although the Committee is informed that no suits of any kind or nature are pending or unsettled as to said work.

The Committee, therefore, recommends that the sureties on the original bonds in the sum of $20,000.00 each on said bridges be released (the contractors, however, to remain liable thereon), upon execution and filing of two bonds in the sum of two thousand dollars each by said contractors in lieu thereof, conditioned in the form of the original bonds, with the surety company to be acceptable to the Committee on Finance and approved by this Board.

Respectfully submitted,

(Signed) Z. R. CARTER,
Chairman.

B. A. ECKHART,

THOMAS KELLY,

Committee on Finance."

(Three enclosures).

RESOLUTION FOR INVITATION TO PRESIDENT OF REPUBLIC OF MEXICO.

President Boldenweck presented, and the Clerk read, the following

RESOLUTION:

"WHEREAS, The Board of Trustees of the Sanitary District of Chicago have learned with much pleasure that His Excellency, General Porfirio Diaz, President of the Republic of Mexico, has indicated that he would be pleased to consider a formal invitation for himself and his Cabinet, and such friends as he might wish to accompany him, to visit the City of Chicago during the month of October next, to attend the ceremonies of the laying of the corner stone of the United States Government Building, at which time will occur the celebration of Chicago Day, the anniversary of the great Chicago fire, and the observance of the Autumnal Festival, and to meet President William McKinley and his Cabinet, who will be present on said occasion; and,

WHEREAS, It is highly gratifying that there exists between the people of the United States and the sister Republic of Mexico the most cordial and friendly relations, and it would be most agreeable for the citizens of the Sanitary District of Chicago to embrace an opportunity of manifesting to the President of Mexico the feeling of friendship in this country for the people he so honorably represents; and,

WHEREAS, Great pleasure would be afforded our people to be able to accord a greeting to President Porfirio Diaz, the great soldier and statesman, whose administration as Chief Magistrate of our sister Republic has been so conspicuous for the public peace it has established, and safety of person and public property it has maintained, and the friendly interest it has ever manifested for the welfare of those Americans who have become residents of Mexico or who have identified themselves with material interests there; therefore be it

Resolved, By the Board of Trustees of the Sanitary District of Chicago, that on behalf of the people of this District we hereby most heartily join in extending a welcome to His Excellency, Porfirio Diaz, President of the Republic of Mexico, his Cabinet and such friends as he may wish to accompany him, to visit the City of Chicago in response to the formal invitation to be sent him by the proper authorities, and most earnestly hope that he will find it convenient and agreeable to accept the same.

Resolved, That a copy of this resolution be furnished the proper authorities for transmission with the formal invitation to President Diaz."

On motion of Mr. Eckhart, seconded by Mr. Kelly, the resolution was adopted by a unanimous vote.

ADJOURNMENT.

On motion of Mr. Mallette, seconded by Mr. Jones, the Board then adjourned.

Joseph F. Haas

Clerk.

PROCEEDINGS

—OF THE—

BOARD OF TRUSTEES

—OF THE—

SANITARY DISTRICT OF CHICAGO.

AUGUST 2, 1899.

OFFICIAL RECORD.

Published by authority of the Board o Trustees of the Sanitary District of Chicago.

REGULAR MEETING.

The four hundred and forty-ninth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Wednesday, August 2, 1899, at 2 o'clock P. M.

On roll-call Messrs. Boldenweck, Braden, Eckhart, Jones, Kelly and Mallette—six members, were present.

President Boldenweck then called the Board to order.

MINUTES.

The minutes of the regular meeting held July 26, 1899, were approved as printed, on motion of Mr. Kelly, seconded by Mr. Jones.

VOUCHERS.

The Clerk presented the following vouchers:

* PAY ROLLS.

Engineering Department (Chief Engineer's roll, July, 1899)	$ 1,225 00	
Engineering Department (Division of Construction roll, July, 1899)	6,011 81	
Engineering Department (Division of Draughting and Designing roll, July, 1899)	1,832 33	
Engineering Department (Division of Records roll, July, 1899)	645 00	
		$ 9,714 14

Clerical Department (Clerk's roll, July, 1899)		$ 1,043 33
Law Department (Attorney's roll, July, 1899)	$ 1,468 34	
Law Department (Joliet roll, July, 1899)	458 34	
		1,926 98
Treasury Department (Treasurer's roll, July, 1899)		166 66
General Account (General roll, July, 1899)	$ 325 00	
General Account (Trustees' roll, July, 1899)	2,333 33	
		2,658 33
General Account (Special roll, July, 1899)	$ 132 50	
General Account (Special discharge roll, July, 1899)	3 00	
		135 50
Maintenance Account (Pumping Plant roll, July, 1899)		700 00
Police Department (Marshal's roll, July, 1899)		2,383 32
Total		$18,727 96
ENGINEERING DEPARTMENT.		
Wm. Trinkaus (expense)	$ 34 43	
*Isham Randolph (traveling and expense)	259 80	
*Donald Fraser (inspecting bridges)	235 28	
		529 51
CLERICAL DEPARTMENT.		
The Waukesha Water Company (water)		20 25
LAW DEPARTMENT.		
Callaghan & Co. (law books)	$ 4 75	
C. Z. Noel (expert witness fee)	5 00	
Elizabeth H. Ryan (typewriting)	8 50	
John S. White (services)	33 00	
*John W. Nadelhoffer (expense)	79 81	
*Isaac N. Richards (expert witness)	125 00	
*J. H. Plain (expert witness)	200 00	
*John Jameson (expert witness)	200 00	
*Charles C. Gilbert (expense)	386 19	
*Charles C. Gilbert (expense)	389 60	
*John S. Runnells (services General Counsel, July, 1899)	416 66	
		1,848 51
GENERAL ACCOUNT.		
J. G. Bodenschatz (sundries)	$ 14 00	
Geo. Losey (sundries)	14 00	
Wagner Bros. (livery)	29 50	
*Isham Randolph (traveling)	78 00	
*John F. Higgins (printing Proceedings July, 1899)	255 79	
*Chicago Telephone Company (rental and toll service six months)	1,094 20	
		1,485 49
***CONSTRUCTION ACCOUNT.**		
Lydon & Drews Company (dredging Chicago River)	$ 8,295 87	
Lydon & Drews Company (By-pass, Chicago River)	22,094 63	
Chicago Bridge and Iron Company (By-pass, Van Buren Street.)	4,050 00	
Chicago Crushed Stone Company (Summit-Lyons Bridge)	2,600 72	
Christie & Lowe (Bear Trap Dam sundries)	466 89	
Heggie Bros. (Section O, Pumping Plant)	229 67	
McArthur Bros. Company and Winston & Co. (Section O—P. H. Bridge)	54 83	
Allen's Cornice and Corrugating Works (sundries)	37 50	
P. Peterson (Section O—P. H. Bridge)	18 49	
Werden Buck (Section 6, cement)	16 25	
		$37,864 85
Grand total		$60,476 57

* To be paid by warrants, with interest coupons attached, drawn against the Tax Levy for 1899.

Mr. Mallette, seconded by Mr. Jones, moved that the vouchers as read and shown above be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Eckhart (*except as to voucher for general account, special roll $132.50, on which he was excused*), Jones, Kelly and Mallette—six (*except as above stated*). Nays—none.

Upon this result the President declared the motion carried.

WEEKLY REPORT ON EMPLOYES.

The Clerk presented a report, in accordance with the Rules, showing the number of persons in the employ of the District for the week ending July 29, 1899, which was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, August 2, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the week ending July 29, 1899, as the same have been reported to me:

Engineering department	88
Maintenance	9
Clerical department	5
Law department	8
Treasury department	1
Police department	28
General	9
Total employes	148

Respectfully submitted,

(Signed) JOSEPH F. HAAS,
Clerk."

MONTHLY REPORT FROM ENGINEERING DEPARTMENT.

The Clerk presented a report from the Engineering Department for the month of June, 1899, which, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, July 29, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I herewith transmit the report of the Engineering Department for the month of June, 1899, giving the detailed operations of the several divisions constituting the same.

The value of the construction work done was $213,440.15, divided as follows: Main Channel, $118,034.00; bridges, $95,392.42; general, $13.73. The engineering expenses were $11,229.27, divided as follows: Salaries, $8,973.80; supplies, etc., $2,255.47. Capitalization vouchers were issued as follows: Belt Railway of Chicago, $93,046.50; The A., T. & S. F. Ry. Co., $28,748.60; total, $121,795.10.

DIVISION OF CONSTRUCTION.

The weather during the month was favorable to good progress except for six days, during which there were thunderstorms of short duration. The temperature varied between 60 degrees to 90 degrees Fahrenheit.

Chicago River Improvement—During the month the work was prosecuted day and night, with a partial force on Sundays. At the Jackson Street section, the main cut, north of Jackson Street, was taken out to grade. The cut south of Jackson Street was worked northerly connecting with the main cut and southerly to within about 40 feet of the Metropolitan Elevated Railroad. Three hoists were used on this work, but an average of only two were in actual service. The cubic yards excavated were 5,989, measured in place. A new cut was opened between the Metropolitan Railroad and Van Buren Street. One thousand one hundred and eleven cubic yards were taken out with wheelbarrows and dumped into a scow and towed away. A small amount was excavated beneath the Alton building and dumped from wheelbarrows into the river or coffer-dam. Thirteen per cent of the excavation was done during the month and fifty-eight per cent completed to July 1, 1899.

As the excavation under the south of Jackson Street bridge progressed, the timber and flooring of the temporary roadway were laid on the piles, already in place, and the roadway practically completed to the southerly end of the cut. Sheeting of the sides was carried downward as the clay was removed. Fifteen per cent of the roadway was completed during the month and sixty-five per cent completed to July 1, 1899.

The driving of piles for the coffer-dam was begun at the Jackson Street bridge on the 5th and at the Van Buren Street bridge on the 7th. Driving of sheeting

began on the 9th at Jackson Street and on the 12th at Van Buren Street, and was continued throughout the month. On the 17th and 18th the Van Buren Street bridge was open and shored up with timbers to admit of driving for this part of the coffer-dam. Tie rods were put in place and the coffer-dam filled as far as the south line of Jackson Street. No filling was done at Van Buren Street. The timber bracing within the cut was continued southerly from the north line of Jackson Street as excavation advanced. About 70,000 feet B. M. was put in. Twenty five per cent of the coffer-dam was completed during the month and 66 per cent to July 1, 1899.

The Bedford stone for coping at Adams Street was delivered early in the month. The setting of same on the east wall was begun on the 5th and finished on the 14th. The setting on the west wall was begun on the 14th and completed on the 23d. Back-filling the west wall at Adams Street was continued during the month at intervals. The estimate of wall work done during the month is 1 per cent. and the amount completed to July 1, 1899, is 26 per cent.

The pavement was taken up and piled near the site of the work as the excavation was pushed southerly. The platforms at the north end of the Pennsylvania Company's freight house were removed, and on the 27th the contractors began taking down the northeast corner of the freight house itself. The team scale of the Pennsylvania Company was removed from the line of the Channel and installed at the southeast corner of the west abutment of the Jackson Street Bridge. This was vouchered as extra work.

The average number of men employed during the month was 136 men per day.

Lydon & Drews Company's dredge No. 2 worked most of the month in the vicinity of Twenty-second Street and removed 48,800 cubic yards of material.

The work of removing the Taylor Street Bridge, center pier, protection piles and the dredging of the river at that point was completed and the bridge removed as a whole to the Twenty-second Street Water Works slip.

The following vouchers were issued account Chicago River work:

Lydon & Drews Co. (By-pass)	$16,685 55
Lydon & Drews Co. (dredging)	8,113 00
Lydon & Drews Co. (moving Taylor Street Bridge)	10,450 00
C. T. T. R. R. Co. (sundries account C. T. T. R. R. Co. Brdg)	$10,297 37
C. T. T. R. R. Co. (sundries account C. T. T. R. R. Co. Brdg)	6,453 00
Total	$51,998 92

Section "O"—Some material was hauled from the spoil bank of the collateral channel to the adjacent brick yard. The construction of two additional trestles, east of the former ones and for the use of the Chicago Junction Railway Company at the Pan Handle crossing, was begun on the 19th and pushed vigorously throughout the month. The various railroad companies did more or less work on their crossings on this section. The work of removing the Western Avenue Pontoon Bridge was continued during the entire month and was nearly completed. The installation of the pumping plant at the west end of this section was continued throughout the month and almost completed.

The contractors for the substructure of the eight-track bridge at Campbell Avenue continued excavation with a large scraper force all the month, removing 9,816 cubic yards of glacial drift from the Main Channel and 6,800 cubic yards from the bridge pit outside of the Main Channel prism. One thousand and fifty lineal feet of old piles were also removed. The removal, by Geo. M. Huss, of the eighty feet girders at the site of this bridge was completed on the 14th.

The following vouchers were issued for Section "O":

The Marsh & Bingham Co. (account temporary bridges)	$ 106 14
C. T. T. R. R. Co. (account temporary bridges)	281 95
C. T. T. R. R. Co. (account temporary bridges)	87 86
C. J. Ry. Co. (account temporary bridges)	48 03
P., C., C. & St. L. Ry. Co. (account temporary bridges)	41 80
I. C. R. R. Co. (account temporary bridges)	4 61
A. T. Wilcox (account temporary bridges)	184 58
Geo. M. Huss (account temporary bridges)	301 00
Chicago Bridge & Iron Works (pumping plant)	20 16
Hayes Bros. (pumping plant)	93 17
The Marsh & Bingham Co. (pumping plant)	129 78
The Marsh & Bingham Co. (pumping plant)	11 5[illegible]

The Scherzer Rolling Lift Bridge Co. (eight-track bridge, etc.)	$ 2,450 00
The Scherzer Rolling Lift Bridge Co. (eight-track bridge, etc.)	7,911 05
Geo. M. Huss (eight-track bridge, etc.)	770 45
Chicago Crushed Stone Co. (S. W. Blvd. Bridge)	480 00
Chicago Crushed Stone Co. (S. W. Blvd. Bridge)	479 20
Chicago Crushed Stone Co. (S. W. Blvd. Bridge)	487 84
Hayes Bros. et al. (S. W. Blvd. Bridge)	536 20
Total	$14,425 34

Section "N"—A scraper force was at work near the east end of this section excavating from the Main Channel and depositing the material on the south bank. The amount moved by this force was 1,248 cubic yards. On the 20th this force was used for the remainder of the month in widening the Santa Fe road-bed with material taken from the south spoil bank. The shovel and train plant worked to the 2d and from the 20th to the end of the month. Three thousand and sixty-four cubic yards were excavated by this plant, which was hauled to the Southwest Boulevard. The shovel and incline plant worked all the month in day shift and removed 16,851 cubic yards of material. Part of this amount was vouchered on the previous estimate of the contractors for this section. The excavation of the Kedzie Avenue temporary roadway was continued with scraper teams during the early part of the month, then wagons loaded by hand were substituted.

The embankment behind the south abutment of the C., M. & N. R. R. Co.'s bridge across the Main Channel was completed on the 3d. From the 12th to the end of the month a large force was employed by the I. C. R. R. Co. laying track on and between its two bridges and ballasting same, so that the new tracks were nearly ready for trains on the 30th.

The work of removing the false work used in the erection of the superstructure of the A., T. & S. F. Ry. Co.'s bridge across the Main Channel on this section was completed on the 12th. Track laying and ballasting of the track across this bridge and its approaches was begun on the 24th and continued to the end of the month. On the afternoon of the 27th the first train ran across this bridge. The removal of the temporary trestle used during the construction of this bridge was begun on the 28th.

The following vouchers were issued for Section "N":

Hayes Bros. et al (excavation)	$ 956 56
Hayes Bros. et al (excavation)	1,788 28
McArthur Bros. Co. and Winston & Co. (C., M. & N. R. R. Co's. bridge)	322 92
Hayes Bros. (C., M. & N. R. R. Co's. bridge)	139 74
Garden City Sand Co. (C., M. & N. R. R. Co's bridge)	33 08
Isham Randolph (Kedzie Ave. bridge)	23 50
A., T. & S. F. Ry. Co. (A., T. & S. F. Ry. Co's. bridge)	30 47
A., T. & S. F. Ry. Co. (Cap. voucher A., T. & S. F. Ry. Co's. bridge)	28,748 60
Total	$32,038 15

Sections "M" and "L"—A start was made on the installation of the 20 inch pump at the east end of Section "M."

Section "K"—The excavation of the old embankment of the Belt Railway across the east end of this section was begun on the 27th by Christie & Lowe, with a force of six scraper teams. Track laying was continued over the Chicago Belt Railway's temporary trestle to the 10th when the rails were connected with the main line and trains ran over the trestle.

The following vouchers were issued for Section "K":

Hayes Bros. (Belt Ry. Co's. temporary bridge)	$ 117 10
Crerar, Adams & Co. (Belt Ry. Co's. temporary bridge)	67 26
The Marsh & Bingham Co. (Belt Ry. Co's. temporary bridge)	528 00
The Belt Railway of Chicago, Cap. voucher (Belt Ry. Co's. permanent bridge)	93,046 50
Total	$93,758 86

Section "H"—A team-force continued work throughout the month on the old Santa Fe right of way on the west end of this section and the east end of Section "G." The total amount excavated was 12,630 cubic yards of glacial drift.

The following vouchers were issued for Section "H:"

Gahan & Byrne (excavation)	$ 1,030 08
Gahan & Byrne (excavation)	2,632 62
	$ 3,662 70

Section "G"—The shovel and incline plant started work on the 18th and continued night and day shifts to the end of the month. Eight thousand eight hundred and sixty-four cubic yards of glacial drift were vouchered during the month.

The A., T. & S. F. Ry. Co. finished surfacing its new track on the 20th. The Postal Telegraph Cable Company finished changing wires on the 13th.

The following vouchers were issued for Section "G:"

Gahan & Byrne (excavation)..	$ 2,646 42
A., T. & S. F. Ry. Co. (A., T. & S. F. Ry. Co. Bridge)....	2,351 76
Total.....	$ 4,998 18

Section "F"—Traffic was turned over the Lyons-Summit Road Permanent Bridge over the Main Channel on this Section on the 13th. Laying floor and the painting of the iron work of this bridge continued throughout the month. Some stone cutting for the adjustment of the rollers on the abutments of this bridge was done. Macadamizing the Lyons-Summit road was begun on the 28th.

The following vouchers were issued for Section "F:"

A., T. & S. F. Ry. Co. (A., T. & S. F. Bridge, Desplaines River).....	$19,210 73
Halvorson, Richards & Co. (Lyons Summit Bridge, M. C).....	655 83
Isham Randolph (Lyons-Summit Bridge, M. C.).....	30 00
Total	$19.896 56

Section "E" — The Peteler car plant worked all the month excavating at the east end of this Section. All of the glacial drift and the greater part of the rock were deposited on the spoil area, a small part of the rock being used in the revetment of slopes. The revetting of slopes continued throughout the month. The quantities vouchered for the month were: 7,425 cubic yards of rock; —194 cubic yards of glacial drift (due to over-estimate in the previous vouchers). The Lyons-Summit Road temporary bridge was removed between the 13th and 17th, giving the contractors access to the unfinished portion of this section.

Work on the C. T. T. R. R. Co.'s permanent bridge across the Desplaines River on this section was resumed on the 5th and continued to the end of the month. The excavation for the south abutment was finished on the 19th and concrete foundation started on the 20th. Excavation for Pier No. 1 was begun on the 20th, but work on same was discontinued. The raising of the three spans of the superstructure of this bridge, which fell into the river during April of this year, was begun on the 15th and continued throughout the month.

The following vouchers were issued for Section "E":

Halvorson, Richards & Co. (excavation).....	$ 3,481 56
Halvorson, Richards & Co. (excavation).....	1,020 42
C. T. T. R. R. Co. (C. T. T. R. R. Co.'s temporary bridge)..	100 74
C. T. T. R. R. Co. (C. T. T. R. R. Co.'s temporary bridge)..	95 96
Total.....	$ 4,698 68

Section 6—The work of repairing the wall at Stations 1049 and 1050 was continued up to and including the 26th, at which time the wall had been constructed, the coffer-dam removed and the derrick dismanteled and moved to the A., T. & S. F. Ry. Co.'s crossing on Section 8. About 200 cubic yards of masonry was laid between May 25th and June 16th. One derrick was used and an average of eighteen men employed the larger portion of the time. This work was done by force account.

The following vouchers were issued on this account:

Werden Buck (cement).....	$ 143 88
Mason & Hoge Co. (construction).....	1,436 18
Total	$ 1,580 06

Section 8—A small force was engaged the fore part of the month in painting the superstructure of the A., T. & S. F. Ry. Co.'s Bridge across the Main Channel, finishing the same on about the 10th.

The superstructure of the Lemont Road Bridge over the Main Channel is practically completed.

The following vouchers were issued for Section 8:

A., T. & S. F. Ry. Co. (A., T. & S. F. Ry. Co.'s Bridge, M. C.).....	$ 121 53
Carnegie Steel Co., Limited (A., T. & S. F. Ry. Co.'s Bridge, M. C).....	11,768 40

A., T. & S. F. Ry. Co. (A., T. & S. F. Ry. Co.'s Bridge, Desplaines River)	$ 9,759 26
Total	$21,649 19

Section 12—A small force was engaged up to the 17th in laying masonry for the roadway wall for the Romeo Road Bridge over the Main Channel. The derrick used in handling stone at the dock was dismantled and shipped to Section 17 on the 24th. A small amount of painting and bridge flooring remains to be done on the superstructure.

The following vouchers were issued on account of this work:

Heldmaier & Neu	$ 2,021 21
Heldmaier & Neu	392 74
A., T. & S. F. Ry. Co.	35 84
Total	$ 2,449 79

Section 14—At the pumping station, one pump was operated continuously during the month, and both engines and pumps were run when the elevation of water made it practicable to do so. Water in the Main Channel at the end of the month was at grade.

Section 15—Work on the regular contract of the superstructure of the Bear Trap Dam was completed on May 31st. From June 1st to the 16th, a part of Christie & Lowe's force was engaged in completing the concrete faces of abutments, placing sheathing plates on down stream leaf dam and making man-holes to the dam chamber. One or two men worked at the adjustment of the operating mechanism of the foundation, etc., of the dam. Work was completed on this part of the structure on the 19th.

The following vouchers were issued on this account:

Christie & Lowe	$ 690 00
Christie & Lowe	215 99
Christie & Lowe	350 61
Christie & Lowe	9,390 00
Christie & Lowe	1,171 12
Total	$11,817 72

Section 16—With the exception of about six days, work was carried on daily during the entire month on this Section. An average force of forty laborers and teams, operating wagons and cars, were used, and two drills were in operation. The material excavated was placed in embankment and on the approaches to the Lockport and Wire Mills Road Bridges. Eleven thousand seven hundred and fifty cubic yards of material were vouchered on this account.

The work of assembling the iron work for the Wire Mills Road Bridge was begun the fore part of the month and by the 20th the spans were in position. Painting was begun in the latter part of the month.

The following vouchers were issued on account of this Section:

Hayes Bros. (excavation)	$ 4,009 69
Hayes Bros. (Lockport temporary road)	85 82
P. T. Dunn & Co. (Lockport temporary road)	14 00
Total	$ 4,109 51

Section 17—No work of excavation was done on this Section from the 1st to the 15th on account of the flooding of the new river channel from high water in the Desplaines River. During the remainder of the month, the steam shovel, dredge and pumps were run in double shifts — two locomotives, two incline hoists, ten drills, teams, wagons and cars were used on this work. Ten thousand four hundred cubic yards of rock were removed and 17,700 cubic yards of earth. Four thousand two hundred cubic yards of this amount were placed in the crib between Ruby Street and Dam No. 1. A voucher for $13,495.13 was issued to the contractors for this section.

Section 18—Work was continued on conduit and dam with an average force of fifty-six men. The amount of work done at this point is as follows: Seventy-five lineal feet of dam; 75 lineal feet of conduit; 2,200 cubic yards of excavation; 350 lineal feet of coffer-dam; 240 cubic yards of concrete. Excavation on Main Channel was prosecuted with an average force of eighty-six men, and performed the following work: Seven thousand three hundred cubic yards of excavation; 1,800 cubic yards of levee embankment; 450 lineal feet of levee. The material excavated from the conduit and canal pits was placed in the Illinois and Michigan Canal rip-rap and amounted to 2,300 cubic yards. One scow, two boilers and one small pump were added to the plant in June.

The work of foundation excavation for the substructure of the C., R. I. & P. R. R. Co.'s bridge on this section was begun on the 15th and carried on throughout the month. Three hundred cubic yards were excavated on this account.

The following vouchers were issued on account of this section:

Gahan & Byrne (excavation, etc.)	$25,815 13
Gahan & Byrne (excavation, etc.)	476 54
C., R. I. & P. R. R. Co. (temporary bridge)	2,017 58
Heldmaier & Neu (account crib work)	13 73
Total	$28,322 98

DIVISION OF DRAFTING AND DESIGNING.

The regular platting was continued on the contour maps between Lockport and Willow Springs and the atlas of the right of way. Work was continued on the maps to be used in constructing the relief map of the Main Channel.

The following drawings, etc. were made: A map of the lower Illinois River from Henry to Beardstown and another from Beardstown to St. Louis; plans for storage building; copy of plan of Western avenue and 81st street, made by the West Park Board; plan of Goerner land near Gary; plan showing right of way between Western avenue and Robey street; details for gate at mouth of By-pass tunnel at Joliet; and a map showing Chicago River improvements.

The greater part of the time of the Bridge Department was taken up in making the design and plans for the tow-path bridge at Joliet. Some time was given to the temporary work at the eight track draw and to the design of the bridge at the Bear Trap Dam.

The work of the office force, exclusive of the Bridge and Drafting Departments, was as follows:

Detail work on plans for the By-pass and work along the Chicago River was continued. The testing of sand and cement for use in construction work was continued, as was also the work of preparing record photographs and the maintenance of water gauges. Some time was given to hydraulic data pertaining to the Illinois, Desplaines and Chicago Rivers and to Lake Michigan. Inspection of the Thirty-ninth Street conduit was continued, as was also the entire Sanitary District construction work.

DIVISION OF RECORDS.

The work of this Division has been carried on in the usual manner.

I estimate the expenses of this Department for the month of July will be $150,000.00.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,

Chief Engineer."

Tabulated Statement of Expenditures, Values and Quantities, Engineering Department.

SANITARY DISTRICT OF CHICAGO—ENGINEERING DEPARTMENT.

CLASSIFIED STATEMENT OF EXPENDITURES DURING THE MONTH OF JUNE, 1899.

Classification.	Engineering Expenses.			Construction.	Capitalization.
	Salaries.	Supplies, Etc.	Total.		
Maps and Plans for General Use of Sanitary District	$ 476 80	$ 11 40	$ 488 20	.....	.....
Chicago River Survey	.....	10 00	10 00	.....	.....
Chicago River Improvement	1,491 10	123 43	1,614 53	$24,798 55	.....
Right of Way	143 60	.....	143 60	.....	.....
Flood Measurements	102 10	.....	102 10	.....	.....
Disposal Works and Joliet Project	2,523 43	284 23	2,807 66	55,627 94	.....
Regular Construction—Main Channel and River Diversion	1,223 16	152 15	1,375 31	21,143 30	.....
Wire Mills Road Permanent Bridge over Main Channel, Sec. 16	33 86	56 42	90 28	.....	.....
Lockport Temporary Roadway, Sec. 16	.....	.....	.....	99 82	.....
Lockport Road Permanent Bridge over Main Channel, Sec. 16	42 72	83 86	126 58	.....	.....
Romeo Road Permanent Bridge over Main Channel, Sec. 12	162 25	5 82	168 07	2,449 79	.....
Lemont Road Permanent Bridge over Main Channnel, Sec. 8	15 00	.....	15 00	.....	.....
A., T. & S. F. Ry. Co.'s Permanent Bridge over Desplaines River, Sec. 8	.....	223 55	223 55	9,759 26	.....
A., T. & S. Fe Ry. Co.'s Permanent Bridge, Main Channel, and track deviation over Main Channel, Sec. 8	57 78	480 67	538 45	11,889 93	.....
Willow Springs Road Permanent Bridge over Main Channel, Sec. 1	15 00	46	15 46	.....	.....
C. T. T. R. R. Co.'s Permanent Bridge over Main Channel, Sec. E	.....	12	12	.....	.....
C. T. T. R. R. Co.'s Temporary Bridge over Desplaines River, Sec. E	30 00	.....	30 00	196 70	.....
C. T. T. R. R. Co.'s Permanent Bridge over Desplaines River, Sec. E	90 00	9 00	99 00	.....	.....
Lyons-Summit Road Permanent Bridge and Roadway over Main Channel, Sec. F	60 00	10 87	70 87	685 83	.....
Lyons-Summit Road Permanent Bridge over Desplaines River, Sec. E	30 00	.....	30 00	.....	.....
A., T. & S. F. Ry. Co.'s Permanent Bridge over Desplaines River, Sec. F	.....	.....	.....	19,210 73	.....
A., T. & S. Fe Ry. Co.'s Permanent Bridge over Main Channel and track deviation, Sec. G	18 00	.....	18 00	2,351 76	.....
C. & W. I. Belt Ry's Temporary Bridge over Main Channel, Sec. K	60 00	17 86	77 86	712 36	.....
C. & W. I. Belt Ry's Permanent Bridge over Main Channel, Sec. K	220 00	3 50	223 50	.....	$93,046 50

A., T. & S. Fe Ry. Co.'s Permanent Bridge over Main Channel, Sec. N	100 00	305 40	405 40	30 47	28,748 60
Kedzie Avenue Permanent Bridge over Main Channel, Sec. N	.....	.....	.....	23 50	.....
C., M. & N. R. R. Co. 's bridges over M. C. and Kedzie Avenue and track deviation, Sec. N	160 00	8 12	168 12	495 74	.....
Western Avenue Temporary Bridges over Main Channel, Sec. O	25 00	.....	25 00	.....	.....
Southwest Boulevard Bridge over Main Channel, Sec. O	.....	4 92	4 92	1,983 24	.....
Pan Handle R. R. Co.'s Temporary Bridges over Main Channel, Sec. O	120 00	7 25	127 25	1,369 50	.....
Pan Handle R. R. Co.'s Permanent Bridge over Main Channel, Sec. O	400 00	351 10	751 10	4,935 45	.....
Taylor Street Bridge over Chicago River	147 50	6 21	153 71	.....	.....
C. T. T. R. R. Co.'s Bridge over Chicago River	222 50	6 21	228 71	16,750 37	.....
Tow Path Permanent Bridge over Main Channel, Sec. 17	95 00	10	95 10	.....	.....
Jefferson Street Temporary Bridge over Main Channel, Sec. 18	8 00	48	8 48	.....	.....
Jefferson Street Permanent Bridge over Main Channel, Sec. 18	15 00	.....	15 00	.....	.....
Cass Street Permanent Bridge over Main Channel, Sec. 18	15 00	.....	15 00	.....	.....
C., R. I. & P. R. R. Co.'s Temporary Bridge over Main Channel, Sec. 18	87 50	.....	87 50	2,017 58	.....
C., R. I. & P. R. R. Co.'s Permanent Bridge over Main Channel, Sec. 18	102 50	.....	102 50	.....	.....
Moving and repairing bridges	.....	.....	.....	10,450 00	.....
Mortar, Sand and Cement Tests	446 00	36 77	482 77	.....	.....
Photographs of Works	125 00	29 76	154 76	.....	.....
Pumping Plant, Sec. O	80 00	20 81	100 81	124 85	.....
Pumping Plant, Sec. M	30 00	5 00	35 00	.....	.....
Totals	$8,973 80	$2,255 47	11,229 27	$ 187,106 67	$121,795 10

VALUES— STATEMENT SHOWING CONDITION OF

Designation.	Amount earned during June, 1899.				Amount earned to date.			
	Main Channel.	Bridges.	General.	Total.	Main Channel.	River Diversion.	Bridges.	General.
Chicago River Imp'ment	$38,791 20			$38,791 20	$ 303,202 84			
O	7,125 83	$ 1,265 97		8,391 80	350,563 10		$ 77,607 51	
N	2,994 59			2,994 59	211,266 95		3,444 78	
M.					158,015 06			
L					217,287 06			
K		712 36		712 36	287,299 54		4,262 38	
I.					289,846 00			
H	3,662 70			3,662 70	299,741 77			
G	2,481 92			2,481 92	390,183 80			
F					341,404 40	$ 75,627 73		
E	5,145 12	196 70		5,341 82	746,553 03	29,091 91	15,455 98	$ 250 00
D					592,039 29	2,880 54		
C.					443,342 59	40,135 18		781 63
B					438,986 42	59,451 34		150 00
A					801,584 08	115,741 73		
1.					1,210,660 37	143,908 29	1,987 00	30 00
2.					877,695 00	63,190 86		90 00
3.					840,952 93	338 42		
4.					975,248 98	83,304 43		85 25
5.					749,207 28	6,653 64		
6.	1,580 06			1,580 06	687,862 06	55,911 37		
7.					722,544 74	66,193 19		8,758 00
8.					888,834 43	89,683 90	19,853 89	2,580 00
9.					794,838 28	23,573 72	1,012 80	
10.					921,454 79	78,729 58		8,952 33
11.					797,717 50	43,854 42		
12.					837,660 69	21,768 52	1,136 87	
13.					819,388 19			
14					931,457 10			
15.					551,915 85	117 61		
16.	4,682 32			4,682 32	47,046 55		1,500 00	
17.	15,423 00			15,423 00	211,380 71			
18.	29,229 54	2,017 58		31,247 12	115,969 94		3,556 42	
Disposal Wks. at Lockp't	6,917 72			6,917 72	253,976 13			
Repairing I. & M. Canal.								18,052 85
Van Buren St. Approach Span, Chicago River								
Taylor St. Br. over Chicago River							12,666 66	
C. T. T. R. R. Co.'s Br. over Chicago River		16,750 37		16,750 37			42,083 71	
S. W. Blvd. Br., over M. C., Sec. O		1,983 24		1,983 24			149,915 80	
Pan Handle Br., over M. C., Sec. O		5,530 45		5,530 45			64,268 09	
C.,M. & N. R. R. Co.'s Br., over M. C., Sec. N		495 74		495 74			160,125 29	
C.,M. & N. R. R. Co.'s Br., over Kedzie Av., Sec. N							14,515 47	
Kedzie Av. Br., over M. C., Sec. N		23 50		23 50			43,118 58	
A., T. & S. F. R. R. Co.'s Br., over M. C., Sec. N.		30 47		30 47			79,492 53	
Belt Ry. Br. over M. C., Sec. K								
A., T. & S. F. R. R. Co.'s Br., over M. C., Sec. G.		2,351 76		2,351 76			111,462 46	
A., T. & S. F. R. R. Co.'s Br., over D. R., Sec. F.		19,210 73		19,210 73			19,210 73	
Lyons-Summit Road Br., over D. R., Sec. E							12,978 77	
Lyons-Summit Road Br., over M. C., Sec. F		685 83		685 83			33,378 68	
C. T. T. R. R. Co.'s Br., over M. C., Sec. E							50,673 38	
C. T. T. R. R. Co.'s Br., over D. R., Sec. E							3,743 10	
Willow Spgs. Highway Br., over M. C., Sec. 1							22,718 52	
A., T. & S. F. R. R. Co.'s Br., over M. C., Sec. 8.		30,889 93		30,889 93			104,255 34	
A., T. & S. F. R. R. Co.'s Br., over D. R., Sec. 8.		9,759 26		9,759 26			36,683 32	
Lemont Highway Br., over M. C., Sec. 8							20,977 39	
Lemont Highway Br., over D. R., Sec. 8							22,329 89	

CONSTRUCTION CONTRACTS, JULY 1, 1899.

Total.	Amount Paid to Date.	REMAINING TO BE EARNED.			REMAINING TO BE PAID ON VOUCHERS.		
		Main Channel.	Bridges.	Total.	Retained Percentages.	Unpaid Vouchers.	Total.
$ 303,202 84	$ 248 826 04	$139,141 51	.....	$ 139,141 51	$ 19,128 25	$ 35,248 55	$ 54,376 80
428,170 61	422,798 58	31,076 78	.....	31,076 78	1,177 57	4,194 46	5,372,03
214,711 73	201,877 13	45,726 97	.....	45,726 97	11,051 32	1,783 28	12,834 60
158,015 06	158,015 06	.....	.....	.....	.....	.....	.....
217,287 06	217,287 06	819 32	.....	819 32	.....	.....	.....
291,561 92	291,561 92	7,888 25	.....	7,888 25	.....	.....	.....
289,846 00	289,846 00	.....	.....	.....	.....	.....	.....
299,741 77	297,109 15	19,169 87	.....	19,169 87	.....	2,632 62	2,632 62
390,183 80	387,537 38	8,519 28	.....	8,519 28	.....	2,646 42	2,646 42
417,032 13	375,082 00	1,918 34	.....	1,918 34	34,103 38	7,846 75	41,950 13
791,360 92	686,105 82	4,358 33	.....	4,358 33	96,609 43	8,645 67	105,255 10
594,919 83	594,919 83	.....	.....	.....	.....	.....	.....
484,259 40	484,259 40	.....	.....	.....	.....	.....	.....
498,587 76	498,587 76	.....	.....	.....	.....	.....	.....
917,325 81	917,325 81	.....	.....	.....	.....	.....	.....
1,356,585 66	1,349,690 00	.....	.....	.....	6,179 83	715 83	6,895 66
940,975 86	940,975 86	.....	.....	.....	.....	.....	.....
841,291 35	841,291 35	.....	.....	.....	.....	.....	.....
1,058,638 66	1,058,638 66	.....	.....	.....	.....	.....	.....
755,860 92	755,860 92	.....	.....	.....	.....	.....	.....
743,773 43	742,337 25	.....	.....	.....	.....	1,436 18	1,436 18
797,495 93	797,495 93	.....	.....	.....	.....	.....	.....
1,000,952 28	1,000,637 28	9,942 66	.....	9,942 66	315 00	.....	315 00
819,424 30	819,424 30	.....	.....	.....	.....	.....	.....
1,009,136 70	1,009,136 70	.....	.....	.....	.....	.....	.....
841,571 92	841,571 92	.....	.....	.....	.....	.....	.....
860,566 08	860,566 08	.....	.....	.....	.....	.....	.....
819,388 19	819,388 19	.....	.....	.....	.....	.....	.....
931,457 10	931,457 10	.....	.....	.....	.....	.....	.....
552,033 46	552,033 46	.....	.....	.....	.....	.....	.....
48,546 55	38,735 10	18,622 50	.....	18,622 50	5,715 94	4,095 51	9,811 45
211,380 71	172,750 77	86,300 60	.....	86,300 60	25,134 81	13,495 13	38,629 94
119,526 36	77,773 30	269,500 60	.....	269,500 60	14,100 06	27,653 00	41,753 06
253,976 13	236,335 14	6,578 98	.....	6,578 98	6,729 26	10,911 73	17,640 99
18,052 85	18,052 85	.....	.....	.....	.....	.....	.....
.....	.....	.....	$19,495 87	19,495 87	.....	.....	.....
12,666 66	12,666 66	.....	71,040 20	71,040 20	.....	.....	.....
42,083 71	35,630 71	.....	297,384 96	297,384 96	.....	6,453 00	6,453 00
149,915 80	145,151 38	.....	6,252 54	6,252 54	4,228 22	536 20	4,764 42
64,268 09	59,508 09	.....	350,910 24	350,910 24	595 00	4,165 00	4,760 00
160,125 29	160,125 29	.....	.....	.....	.....	.....	.....
14,515 47	14,515 47	.....	.....	.....	.....	.....	.....
43,118 58	43,118 58	.....	250 00	250 00	.....	.....	.....
79,492 53	79,492 53	.....	.....	.....	.....	.....	.....
.....	.....	.....	167,292 50	167,292 50	.....	.....	.....
111,462 46	111,462 46	.....	.....	.....	.....	.....	.....
19,210 73	19,210 73	.....	.....	.....	.....	.....	.....
12,978 77	12,830 82	.....	.....	.....	147 95	.....	147 95
33,378 68	33,378 68	.....	5,204 55	5,204 55	.....	.....	.....
50,673 38	50,673 38	.....	.....	.....	.....	.....	.....
3,743 10	3,694 35	.....	14,428 65	14,428 65	48 75	.....	48 75
22,718 52	22,718 52	.....	160 00	160 00	.....	.....	.....
104,255 34	71,109 85	.....	3,794 90	3,794 90	21,377 09	11,768 40	33,145 49
36,688 32	36,338 32	.....	—4,962 03	—4,962 03	350 00	.....	350 00
20,977 39	20,977 39	.....	141 35	141 35	.....	.....	.....
22,329 89	22,329 89	.....	.....	.....	.....	.....	.....

VALUES— STATEMENT SHOWING CONDITION O

Designation.	Amount earned during June, 1899.				Amount earned to date.			
	Main Channel.	Bridges.	General.	Total.	Main Channel.	River Diversion.	Bridges.	Gener
Western Stone Co.'s Br., over D. R., Sec. 10	.....	.....	.....	.....	.....	.....	$ 15,983 63	.....
Romeo Highway Br. over M. C., Sec. 12	.....	$ 2,738 53	.....	$ 2,738 53	.....	.....	21,216 22	.....
Lockport Highway Br. over M. C., Sec. 16	.....	.....	.....	.....	.....	.....	10,222 08	.....
Wire Mills Rd. Br., over M. C., Sec. 16	.....	.....	.....	.....	.....	.....	10,058 28	.....
E. J. & E. R. R. Co.'s Br., N. of Joliet	.....	.....	.....	.....	.....	.....	41,984 62	.....
Cass St. Br. over M. C., Sec. 18	.....	.....	.....	.....	.....	.....	.....	.....
Jefferson St. Br. over M. C., Sec. 18	.....	.....	.....	.....	.....	.....	.....	.....
C. R. I. & P. R. R. Bridge over Desplaines River	.....	750 00	.....	750 00	.....	.....	750 00	.....
Crib work at Joliet	.....	.....	$13 73	13 73	.....	.....	.....	$32,194
Totals	$118,034 00	$95,392 42	$13 73	$213,440 15	$ 19,107,127 45	$1,000,156 38	$1,234,629 67	$71,80

CONSTRUCTION CONTRACTS, JULY 1, 1899—*Continued.*

Total.	Amount Paid to Date.	REMAINING TO BE EARNED.			REMAINING TO BE PAID ON VOUCHERS.		
		Main Channel.	Bridges.	Total.	Retained Percentages.	Unpaid Vouchers.	Total.
$ 15,983 63	$ 15,983 63	.....	.....	.....	.....	.....	.....
21,216 22	19,398 74	.....	$ 3,922 11	$ 3,922 11	$ 1,429 74	$ 392 74	$ 1,822 48
10,222 08	10,222 08	.....	4,254 92	4,254 92	.....	.....	.....
10,058 28	10,058 28	.....	4,703 02	4,703 02	.....	.....	.....
41,984 62	41,984 62	.....	.....	.....	.....	.....	.....
.....	.....	.....	38,265 75	38,265 75	.....	.....	.....
.....	.....	.....	45,627 25	45,627 25	.....	.....	.....
750 00	.....	.....	.....	.....	93 75	656 25	750 00
32,154 62	32,140 89	.....	32,578 00	32,578 00	.....	13 73	13 73
$ 21,413,308 24	$ 21,020,002 44	$649,563 99	$1,060,744 78	$1,710,308 77	$248,515 35	$145,290 45	$393,805 80

QUANTITIES— STATEMENT SHOWING CONDITION OF CON

DESIGNATION.	AMOUNT DONE DURING JUNE, 1899. Main Channel. Glacial Drift. Cu. Yds	Solid Rock. Cu. Yds	Piles & R. W.	Masonry and Conc'r't. Cu. Yds.	TOTAL DONE TO Main Channel. Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds.	Retaining Wall. Cu. Yds.
Chicago River Improvement	55,900		9,970		819,800		
O	9,816				1,643,670		
N	8,861				907,599		
M					728,180		
L					1,102,980		
K					1,149,031		
I					1,159,384		
H	12,630				1,027,908		
G	8,864				1,365,478		
F					1,093,047	37,448	
E	—194	7,425			1,906,538	207,091	
D					1,934,890	87,030	
C					1,881,545		
B					1,570,036	15,586	
A					2,560,648	13,312	
1					1,282,267	554,326	68,256
2					724,905	483,750	38,506
3					425,705	760,778	14,039
4					1,096,746	262,428	68,169
5					952,526	378,609	56,059.1
6					683,248	549,355	30,361.7
7					181,721	890,939	6,179.9
8					50,170	1,145,252.1	2,874.9
9					76,692	1,003,769	
10					81,743	1,141,890	
11					44,021	989,711	
12					44,030	998,709	9,286.94
13					33,810	1,033,665	10,838
14					380,165	1,022,796	23,567.8
15					35,324	647,039	44,811.2
16	3,916	7,834			9,116	108,134	
17	17,700	10,400			139,800	205,500	800
18	3,250	6,250		381	58,550	43,600	
Disposal Works at Lockport						9,538	
Van Buren Street App. Span, Chicago River							
Taylor Street Bridge over Chicago River							
C. T. T. R. R. Co.'s Bridge over Chicago River							
Southwest Boulevard Bridge over Main Channel, Sec. O					9,873.5		
Panhandle Bridge over Main Channel, Sec. O	6,800				6,800		
C., M. & N. R. R. Co.'s Bridge over Main Channel, Sec. N					17,849		
C., M. & N. R. R. Co.'s Bridge over Kedzie Avenue, Sec. N					2,869		
Kedzie Avenue Bridge over Main Channel, Sec. N					7,101		
A., T. & S. F. R. R. Co.'s Bridge over Main Channel, Sec. N					7,445		
Belt Railway Co.'s Bridge over Main Channel, Sec. K							
A., T. & S. F. R. R. Co.'s Bridge over Main Channel, Sec. G					85,253		
Lyons-Summit Road Bridge over Desplaines River, Sec. E					5,557		
Lyons-Summit Road Bridge over Main Channel, Sec. F					2,270		
C., T. T. R. R. Co.'s Bridge over Main Channel, Sec. E					4,748.1		
C., T. T. R.R. Co.'s Br. over Desplaines River, Sec. E					600		
Willow Springs Highway Bridge over Main Channel, Sec. 1					2 084		
A., T. & S. F. R. R. Co.'s Bridge over Main Channel, Sec. 8					98,315	1,020	
Lemont Highway Bridge over Main Channel, Sec. 8					2,006	202	
Romeo Highway Bridge over Main Channel, Sec. 12				249.7		1,330	
Lockport Highway Bridge over Main Channel, Sec. 16						526	

STRUCTION CONTRACTS JULY 1, 1899.

DATE.				ESTIMATED REMAINING TO BE DONE.				PERCENTAGE COMPLETED.				
River Diversion.		Piles. Lineal Feet	Masonry and Concr't Cu. Yds	*Main Channel.*				Main Channel Excava'n	River Divers'n.	Ret. Wall	Masonry and Concr't	Piles.
Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds.			Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds	Piles & R. W.	Mas'y & Concr't Cu. Yds					
.....	.....	53,900	2,250	47,100	.....	22,818	5,079	94.56	.....	....	30.70	70.26
.....	.....	.....	.....	179,365	.....	.....	.....	90.16	.....	....	.....	.....
.....	.....	.....	.....	207,710	.....	.....	.....	81.38	.....	....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	....	.....	.....
.....	.....	.....	.....	4,159	.....	.....	.....	99.62	.....	...	.....	.....
.....	.....	.....	.....	31,563	.....	.....	.....	97.33	.....	....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	....	.....	.....
.....	.....	.....	.....	66,103	.....	.....	.....	93.96	.....	....	.....	.....
.....	.....	.....	.....	30,426	.....	.....	.....	97.82	.....	....	.....	.....
179,447	.....	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
95,718	.....	.....	.....	12,496	.....	.....	.....	99.41	.....	....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	....	.....	.....
170,788	.....	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
212,486	.....	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
359,353	.....	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
174,655	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
119,234	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	100	.....	.....
106,803	17,857	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
12,256	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
118,647	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
97,917	43,102	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
57,902	99,399	.....	.....	.....	15,782	.....	.....	98.70	100	100	.....	.....
40,763	16,873	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
30,313	58,276	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
12,699	15,677	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
11,739	7,475	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	100	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	100	.....	.....
619	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
.....	.....	.....	.....	.....	56,866	.....	.....	67.34	.....	....	.....	.....
.....	.....	.....	.....	147,670	123,060	.....	.....	56.05	.....	100	.....	.....
.....	.....	.....	2,888	33,250	98,530	*6,300	69	43.67	.....	00	97.67	.....
.....	.....	.....	11,365.70	.....	567	.....	.....	94.39	.....	....	100	.....
.....	.....	.....	.....	2,800	.....	.....	784	00	.....	....	00	00
.....	.....	.....	.....	1,500	.....	10,840	1,041	00	.....	....	00	00
.....	.....	.....	.....	12,000	.....	44,840	8,040	00	.....	....	00	00
.....	.....	10,813	4,421.94	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	.....	.....	16,200	.....	29,600	14,360	29.56	.....	....	00	00
.....	.....	5,948	4,236.77	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	.....	595.69	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	.....	2,886.84	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	4,544	2,489.36	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	.....	.....	8,100	.....	7,070	3,795	00	.....	....	00	00
.....	.....	5,748	2,929.03	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	.....	793.3	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	1,501	2,037.2	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	1,166.5	2,162.79	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	.....	.....	372	.....	1,000	652	61.73	.....	....	00	100
.....	.....	400	598.6	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	.....	817.07	29,785	.....	.....	.....	98.97	.....	....	100	.....
.....	.....	.....	433.36	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	.....	1,157.70	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	.....	449.45	.....	.....	.....	.....	100	.....	....	90.85	.....

QUANTITIES— STATEMENT SHOWING CONDITION OF CON

DESIGNATION.	AMOUNT DONE DURING JUNE, 1899.				TOTAL DONE TO		
	Main Channel.				*Main Channel.*		
	Glacial Drift. Cu. Yds	Solid Rock. Cu. Yds	Piles & R. W.	Masonry and Conc'r't. Cu. Yds.	Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds.	Retaining Wall. Cu. Yds.
Wire Mills Road Bridge over Main Channel, Sec. 16	.....	.....	.....	.....	.....	603	.....
E., J. & E. R. R. Co.'s Bridge, north of Joliet	.....	.....	.....	.....	.....	.....	.....
Cass Street Bridge over Main Channel, Sec. 18	.....	.....	.....	.....	.....	.....	.....
Jefferson Street Bridge, over Main Channel, Sec. 18	.....	.....	.....	.....	.....	.....	.....
C., R. I. & P. R. R. Co.'s Bridge over Desplaines River, Sec. 18	.....	300	.....	.....	.....	300	.....
Totals	127,543	32,209	9,970	630.7	27,354,043.6	12,594,236.1	373,749.54

*6,300—Retaining Wall.

STRUCTION CONTRACTS JULY 1, 1899—*Continued.*

DATE.				ESTIMATED REMAINING TO BE DONE.				PERCENTAGE COMPLETED.				
River Diversion.		Piles. Lineal Feet.	Masonry and Concr't. Cu. Yds.	*Main Channel.*				Main Channel Excava'n	River Divers'n.	Ret. Wall	Masonry and Concr't	Piles.
Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds.			Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds	Piles & R. W.	Mas'y & Concr't Cu. Yds					
.....	.....	.....	566.57	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	.....	1,041.84	.....	.....	.....	.....	.....	.....	....	100	.....
.....	.....	.....	.....	2,850	52	.....	696	00	.....	....	00	.....
.....	.....	.....	.....	3,000	104	.....	1,242	00	.....	....	00	.....
.....	.....	.....	.....	.....	2,900	.....	1,326	9.37	.....	....	00	.....
1,801,339	258,659	84,020.5	44,121.21	836,439	297,861	116,168 *6,300	37,084	97.24	100	98.3	55.23	41.97

REPORT IN REFERENCE TO RELEASE OF BOND ON CONTRACT FOR SUPERSTRUCTURE FOR KEDZIE AVENUE BRIDGE ACROSS MAIN CHANNEL ON SECTION "N."

On behalf of the Committee on Finance Mr. Eckhart presented, and the Clerk read, a report from that committee with reference to the reduction of the bond of the King Bridge Company on the contract for the superstructure for the Kedzie Avenue Bridge across the Main Channel on Section "N," the report being accompanied by a communication from The City Trust, Safe Deposit and Surety Company of Philadelphia in reference to the matter, the said communication having been presented, and referred to that committee at the meeting held July 12, 1899, (page 5923 of the Proceedings); the committee report recommending that the surety on the original bond of $10,000.00 be released, (the contractors, however to remain liable thereon) upon the execution and filing of a bond in the sum of $2,000 in lieu thereof, with a surety company acceptable to the Committee on Finance and approved by the Board.

Mr. Eckhart, seconded by Mr. Kelly, moved that the report be adopted and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Eckhart, Kelly and Mallette—five. Nays—none. Excused and not voting—Mr. Jones—one.

Upon this result the President declared the motion carried.

The following is

THE REPORT.

"CHICAGO, July 28, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Your Committee on Finance herewith reports that it has received a communication from the City Trust, Safe Deposit and Surety Company of Philadelphia, the surety on the bond of the King Bridge Company for the superstructure of the Kedzie Avenue Bridge, crossing the Main Channel on Section "N," requesting the execution of the release of said surety hereunto attached.

The Committee advises that it has made a careful examination with reference to the work done upon said superstructure above mentioned, and finds that the superstructure of said Kedzie Avenue Bridge across the Main Channel on Section "N," was finally completed in the month of May, 1899; that the final certificate of the Chief Engineer upon said bridge was awarded said contractor on the 18th day of May, 1899 (page 5818 of the Proceedings), and that said contractor was fully paid upon said certificate.

Bond remaining on file upon the superstructure of said bridge has never been reduced, although the Committee is informed that no suits of any kind or nature are pending or unsettled as to said work. The Committee, therefore, recommends that the surety on the original bond, in the sum of ten thousand dollars, be released (the contractor, however, to remain liable thereon), upon the execution and filing of a bond in the sum of two thousand dollars by said contractor in lieu thereof, conditioned in the form of the original bond, with a surety company to be acceptable to the Committee on Finance and approved by this Board.

Respectfully submitted,

(Signed) Z. R. CARTER,
Chairman.

B. A. ECKHART,

THOMAS KELLY,

Committee on Finance."

(One enclosure.)

REPORT WITH REFERENCE TO COMPLETION OF CONTRACT FOR THE SUPERSTRUCTURE FOR THE LOCKPORT HIGHWAY BRIDGE CROSSING THE RIVER DIVERSION CHANNEL ON SECTION "16."

On behalf of the Committee on Engineering, Mr. Mallette presented, and the Clerk read, a report from that Committee with reference to, and accompanied by, the final certificate of the Chief Engineer as to the completion of the contract with the Wisconsin Bridge and Iron Company for the superstructure for the Lockport Highway Bridge crossing the River Diversion Channel on Section 16; the report recommending that the action of the Chief Engineer in remitting the time penalty on account of delay in completing the work on said contract be confirmed, and further recommending that the president and Clerk be authorized and directed to make final payment to said Wisconsin Bridge and Iron Company in the sum of $4,381.60, the sum found to be due said contractor, upon the execution in favor

of the District of a receipt and final release in full of all claims and demands of whatsoever kind or nature arising from said contract and, also, upon the execution of a waiver and release for all extra compensation on the superstructure of the C. T. T. R. R. Co.'s Bridge across the Main Channel, and all claims on account of delay on the one hundred and five foot double track span for the C. T. T. R. R. Co.'s Bridge across the Desplaines River, near the west end of Section "E."

Mr. Mallette, seconded by Mr. Jones, moved that the report be adopted and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Eckhart, Jones, Kelly and Mallette—six. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, August 2, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Your Committee on Engineering herewith presents the final certificate of the Chief Engineer of the District in favor of the Wisconsin Bridge and Iron Company, for work done under its contract with the Sanitary District, dated October 29, A. D. 1898, for the construction of the superstructure for the Lockport Highway Bridge crossing the River Diversion Channel on Section sixteen (16), and would respectfully represent that it has considered the subject matter of said certificate and the accompanying offer of waivers of said company to claims on other contracts between it and the District, and that, in view of the same, it recommends that the action of the Chief Engineer in remitting the time penalty on account of delay in completing the work on said contract of October 29, 1898, be confirmed; and further recommends that the President and Clerk of the District be authorized and directed to make final payment to said Wisconsin Bridge and Iron Company in the sum of four thousand three hundred eighty-one and sixty-one hundredths dollars ($4,381.60), the amount found to be due in the certificate aforesaid, when said company shall have executed in favor of the Sanitary District a receipt and final release in full for all claims and demands of whatsoever kind or nature arising out of or under said contract, and shall have executed a waiver and release for all extra compensation on the superstructure of the Chicago Terminal Transfer Railroad Company's Bridge across the Main Channel, and all claims by reason of delay on the one hundred and five foot double-track span for the Chicago Terminal Transfer Railroad Company's Bridge across the Desplaines River, near the west end of Section "E."

Respectfully submitted,

(Signed) J. P. MALLETTE,
THOMAS KELLY,
B. A. ECKHART,
ALEX. J. JONES,
WM. BOLDENWECK,
Committee on Engineering."

The following is

THE FINAL CERTIFICATE OF THE CHIEF ENGINEER:

"CHICAGO, July 29, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I hereby certify that the Wisconsin Bridge and Iron Company has completed the erection of the bridge crossing the new channel of the Desplaines River on the line of the Lockport road, in accordance with the terms of its contract with the Sanitary District of Chicago dated October 29th, 1898, to the satisfaction of the Chief Engineer, except as to the time of completion, on which it was delinquent. In view of the fact that this company holds another contract with this District for the erection of a double-track railroad bridge across the Desplaines River on the line of the Chicago Terminal Transfer Railroad which it has been unable to erect by reason of the failure of this District to furnish the substructure, which delay has extended over a period of nine months, creating a claim on the part of the bridge company against this District, as an adjustment of this claim of the bridge company for delay, a waiver of which is attached hereto, and also the abandonment of the pending claim for extras on account of the Chicago Terminal Bridge erected by it across the Main Channel, I have agreed to remit the forfeiture which would have been due on this bridge and also on the Wire Mills Road Bridge, and I ask you to confirm my action.

This certificate is given subject to any unaccrued or unmatured obligations imposed by the contract.

The volume and value of the work done is as follows:

Contract price for superstructure	$10,954 00
Less amount paid on previous estimates	6,572 40
Amount due and unpaid	$ 4,381 60

Respectfully submitted,

(Signed) ISHAM RANDOLPH,

Chief Engineer."

REPORT IN REFERENCE TO LEASE OF ROOMS IN THE SECURITY BUILDING FOR THE CEMENT TESTING DEPARTMENT.

On behalf of the Committee on Engiing, Mr. Mallette presented, and the Clerk read, a report transmitting a form of proposed lease of Rooms 509 and 510 in the Security Building for the use of the Cement Testing Department; the report recommending that the President and Clerk be authorized to sign a lease for the period from August 1, 1899, to December 31, 1899, at a monthly rental of $40.00.

Mr. Mallette, seconded by Mr. Braden, moved that the report be adopted and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Eckhart, Jones, Kelly and Mallette—six. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, August 2, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN — Your Committee on Engineering has deemed it advisable to lease quarters in the Security Building for the accommodation of the Cement Testing Department, and respectfully recommend that the President and Clerk be authorized to sign a lease with the Security Deposit Company for Rooms 509-10 of the Security Building for the period August 1, 1899, to December 31, 1899, at a monthly rental of $40.00.

Respectfully submitted,

(Signed) B. A. ECKHART,
J. P. MALLETTE,
THOMAS KELLY,
WM. BOLDENWECK,
ALEX. J. JONES,

Committee on Engineering."

(Accompanied by form of lease).

REPORT IN REFERENCE TO AGREEMENT WITH CHICAGO JUNCTION RAILWAY COMPANY FOR TRANSFER OF CERTAIN TRACKS,

On behalf of the Committee on Engineering, Mr. Mallette presented, and the Clerk read, a report from that Committee with reference to, and accompanied by, a form of proposed contract, in duplicate, between the Chicago Junction Railway Company and the Sanitary District of Chicago, regarding the transfer of the tracks of the Chicago Terminal Transfer Railroad Company to the right of way of the Chicago Junction Railway Company: the report recommending that the President and Clerk of the District be directed to execute said contract on behalf of the District.

Mr. Mallette, seconded by Mr. Eckhart, moved that the report be adopted, and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Eckhart, Jones, Kelly and Mallette—six. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, August 2, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Your Committee on Engineering has very carefully consider the proposed draft of contract betwe the Chicago Junction Railway Compa and the Sanitary District of Chicag regarding the transfer of the tracks the Chicago Terminal Transfer Railro Company to the right of way of t Chicago Junction Railway Compan and, having received the opinion of t

Attorney that said proposed draft is in due form, we respectfully recommend that the President and Clerk of the District be directed to execute said contract on behalf of the District.

Respectfully submitted,

(Signed.) J. P. MALLETTE,
B. A. ECKHART,
J. C. BRADEN,
ALEX. J. JONES,
WM. BOLDENWECK,
Committee on Engineering."

(Accompanied by form of contract in duplicate.)

COMMUNICATION FROM SPECIAL COMMISSIONERS CHICAGO DRAINAGE CHANNEL AND ORDER IN REFERENCE THERETO.

Under the head of New Business, the Clerk presented and read a communication from the Special Commissioners Chicago Drainage Channel with reference to, and accompanied by, a schedule of the payments now due employes and for other disbursements for the month of July, 1899, amounting to $2,606.90, the communication asking that the Board pay the amounts due upon the attached schedule in order that the Commissioners may be enabled to continue their duties.

By unanimous consent the communication was ordered received, printed and placed on file.

In the same connection Mr. Eckhart presented, and the Clerk read, an order that the Clerk be directed to draw a warrant on the Treasurer of the District in the sum of $2,606.90 in favor of the Clerk, said amount to be treated as a special emergency fund to be used in payment of pay-roll and bills incurred for the month of July, 1899, by the Commissioners appointed by the Governor of the State of Illinois, under Section 27 of the Sanitary District Act, and that the Clerk shall pay to said Commissioners the amount shown to be due according to the schedule aforesaid, duly certified by said Commissioners; the order being accompanied by a duplicate copy of said pay-roll.

Mr. Eckhart, seconded by Mr. Jones, moved that the order be adopted.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Eckhart, Jones, Kelly and Mallette—six. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE COMMUNICATION:

"CHICAGO, ILL., August 2, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—We are proceeding in the discharge of the duties imposed upon us by Section 27 of the Sanitary Act. In performing those duties, we have employed, in addition to our engineer, such assistance as we require to expeditiously perform our duties as required by the act.

We attach to this letter a schedule of the payments now due employes, and for other disbursements for the month of July, amounting to $2,606.90. This amount should be paid at once, or we may be unable to continue our duties. Although the act provides that this expense incurred by us shall be paid by the State Treasury, which will be reimbursed by you, yet the last Legislature did not make the necessary appropriation for such payments to be made by the State Treasury. We, therefore, in accordance with the spirit of the act, which requires that you shall bear this expense, call upon you to forthwith pay the amounts due by the attached schedule to us. Please send us the money or check for the amount, and we will make the payments. You will see that in doing this, all parties are keeping within the spirit of the law, and that it is the only way to carry out the spirit of the law, through the plain oversight of the Legislature in making the necessary legislation.

Very respectfully,

(Signed) AL. F. SCHOCH,
Secretary.
ISAAC TAYLOR,
President."

The following is

THE SCHEDULE:

"Pay roll and bills incurred by the Special Commissioners for the month of July, 1899:

W. B. Ewing, to August 1, 1899....	$ 200 00
J. P. Frizell, to August 1, 1899.....	250 00
I. Watson, to August 1, 1899.....	76 60
E. Zarbell, to August 1, 1899.....	100 00
A. L. Kuehn, to August 1, 2899....	70 00
J. D. Hall, to August 1, 1899.....	65 00
E. L. Mayall, to August 1, 1899.....	65 00
T. F. Foley, to August 1, 1899.....	65 00
S. Trenary, to August 1, 1899.....	54 25
Hermann Heinze, to August 1, 1899.	26 64
Rent for rooms to August 10, 1899..	75 00

Miss E. H. Selby, to August 1, 1899	$ 37 50
Typewriter rent	7 00
Towel rent for July	1 50
Sam. Hanks, ice, June and July	5 80
Thayer & Jackson Co., stationery	9 93
Goodyear Rubber Company, boots	21 60
Keuffel & Esser, supplies	24 90
Chicago Towel Company, June account	1 50
Isaac Taylor, express	3 00
R. Selig, rods	4 00
Postal Telegraph Company, telegrams	3 18
F. Cortez Wilson & Co., supplies	7 43
Edwards & Hancock, supplies	95
D. Fitzgerald, expenses	10 66
H. A. Potwin, expenses	1 65
Sapp & Nattinger, paper	6 50
E. Dietzgen & Co., supplies	62 23
M. D. Rider & Co., supplies	1 15
G. B. Carpenter & Co., supplies	22 65
A. H. Revell & Co., case	3 75
Gutta Percha Rubber Company, supplies	22 50
Office expenses	50 00
Al. F. Schoch, Commissioner, per diem and expenses for July, 1899	305 71
Isaac Taylor, Commissioner, per diem and expenses for July, 1899	317 60
John Lambert, Commissioner, per diem for July, 1899	260 00
C. W. Brown, Attorney	300 00
Harry A. Potwin, to August 1, 1899	66 72
Total	$2,606 90

O K—*Special Commissioners Chicago Drainage Canal.*

Per AL. F. SCHOCH,
Sec.

ISAAC TAYLOR,
President."

The following is

THE ORDER:

"*Ordered*, That the Clerk be, and he is hereby, directed to draw a warrant on the Treasurer of the District in the sum of twenty-six hundred and six dollars and ninety cents ($2,606.90) in favor of himself, said amount to be treated as a special emergency fund to be used in payment of pay roll and bills incurred, for the month of July, A.D. 1899, by the commissioners appointed by the Governor of the State of Illinois, under and by virtue of Section 27 of an act entitled "An act to create Sanitary Districts and to remove obstructions in the Desplaines and Illinois Rivers, and the dams at Henry and Copperas Creek," approved May 29, 1889, in force July 1, 1889.

***Ordered, further*, That the Clerk shall pay to said commissioners the amount shown to be due according to a schedule of pay roll and bills incurred as aforesaid, duly certified by said commissioners."**

(Accompanied by duplicate pay roll.)

ADJOURNMENT.

On motion of Mr. Eckhart, seconded by Mr. Braden, the Board then adjourned.

Joseph F. Haas
Clerk.

PROCEEDINGS

—OF THE—

BOARD OF TRUSTEES

—OF THE—

SANITARY DISTRICT OF CHICAGO.

AUGUST 5, 1899.

OFFICIAL RECORD.

Published by authority of the Board o Trustees of the Sanitary District of Chicago.

SPECIAL MEETING.

A special meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Saturday, August 5, 1899, at 12 o'clock M., pursuant to call.

On roll-call Messrs. Boldenweck, Braden, Jones, Kelly and Mallette, five members, were present.

President Boldenweck then called the Board to order.

CALL FOR MEETING.

The Clerk then read the call for the meeting, which is as follows:

"CHICAGO, August 4, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—At the request of Trustees Mallette, Kelly and Braden, and in accordance with Rule IV of the Rules and Regulations, I hereby call a special meeting of the Board of Trustees of the Sanitary District of Chicago, to be held in the rooms of the Board, Security Building, on Saturday, August 5, 1899, at 12 o'clock noon, for the purpose of considering and passing upon the joint certificate of engineers on the capitalization of the bridge structure for the Atchison, Topeka & Santa Fe Railway Company crossing the Main Channel at Lemont on Contract Section 8, and for such other business as may properly come before the meeting.

Respectfully submitted,

Signed) JOSEPH F. HAAS,

Clerk."

PAYMENT OF INDEMNITY TO CHICAGO, SANTA FE & CALIFORNIA RAILWAY CO. FOR MAINTAINANCE AND REPAIR OF BRIDGE.

The Clerk presented and read a report from the Chief Engineer transmitting joint certificate of the Chief Engineer of the Chicago, Santa Fe & California

Railway Company and the Chief Engineer of the Sanitary District under the provisions of the agreement with the companies comprising the Santa Fe System, dated May 25, 1896, and also the supplemental agreement of October 12, 1898, as to the amount of indemnity to be paid for ordinary maintenance and repair of the A., T. & S. F. Bridge across Main Channel on Section 8 at Lemont, as provided in Sections 17 and 18 of Article 1 of said first mentioned agreement, the amount due being fixed at $47,591.00.

Mr. Kelly, seconded by Mr. Braden, moved that the report be received and that the President and Clerk be authorized and directed to pay to the Chicago, Santa Fe & California Ry. Co. the sum of $47,591.00 in full for said indemnity, when said company shall have executed a proper receipt therefor.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Jones, Kelly and Mallette—five. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, August 5, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I transmit herewith the joint certificate of the Chief Engineer of the Chicago, Santa Fe & California Railway Company and the Chief Engineer of this District, covering the capitalization of the railway bridge crossing the Main Channel of this District at Lemont on Section 8, and with it a voucher for $47,591.00, the amount of said capitalization.

This leaves as the only unsettled capitalization questions between this District and the Santa Fe Company, those relating to Bridge No. 5 and Bridge 84a on which this District is to pay capitalization on one-half the cost of superstructures.

Respectfully submitted,

(Signed.) ISHAM RANDOLPH,

Chief Engineer."

The following is

"THE JOINT CERTIFICATE OF THE CHIEF ENGINEERS:

Acting under the provisions of Article 1 of the contract entered into on the 25th day of May, 1896, by and between the Sanitary District of Chicago and the Atchison, Topeka and Santa Fe Railway Company in Chicago, the Chicago, Santa Fe and California Railway Company and the Atchison, Topeka and Santa Fe Railway Company; and also in compliance with the supplemental agreement entered into on the 12th day of October, 1898, by and between the parties hereinbefore named, we, the undersigned, Chief Engineers respectively of the Sanitary District of Chicago and the above recited railroad corporations, hereby certify that we have verified the weights, quantities and values of the materials falling under the provisions of Sections 17 and 18 of Article 1 of the aforesaid contract of May 25, 1896, and have made the computations based thereon for the purpose of determining the sum to be paid the railway company by the Sanitary District for the ordinary maintenance and repairs of the bridge structure designated in Section 1 of Article 1 of said contract (crossing the Main Channel of the Sanitary District at Lemont on Contract Section 8) and for the general depreciation and wearing out thereof, and for assuming all liability of accident to the same; figured on the basis of the use of said bridge as a fixed structure; and we find the sum to be so paid to amount to forty-seven thousand five hundred and ninety-one ($47,591.00) dollars, as shown in detail in the statement hereto attached. As shown in said detailed statement, the capitalization for painting 858,645 pounds of counter weight iron was, as a matter of equity, reduced to 15-1000 of one cent per pound conditioned upon the agreement of the Sanitary District to protect said counter weights with a suitable covering of asphalt.

ISHAM RANDOLPH,

Chief Engineer Sanitary District of Chicago.

JAMES DUN,

Chief Engineer Chicago, Santa Fe & California Railway Company.

August 4th, A D. 1899.

The following is the

"CAPITALIZATION STATEMENT:

Chicago, Santa Fe & California Railway Company, Lemont draw bridge on Section 8. Double track span, unequal arms; north arm, 138 feet, 11 inches: south arm, 259 feet, 7 inches; total, 398 feet, 6 inches. Length, center to center of end pins, 393 feet, 5⅝ inches.

Weight of metal in superstructure—		
Structural steel	2,126,371	
Cast steel	122,035	
Cast iron	67,250	
Total weight of structural steel and iron		2,315,656
Counter weight		858,645
Total weight		3,174,301
488 bolts, ¾-in. diam. by 14½-in. long—1,294 lbs. (4c per bolt)		$ 19 52
488 cast washers — 488 lbs. (1½c per lb.)		7 32
488 cast clips—1,464 lbs. (1½c per lb.)		21 96
3,246 lbs.		$ 48 80
Total weight of metal in superstructure		3,174,301
Total weight of metal in timber deck		3,246
Weight used for computing cost of painting		3,171 055
2,312,410 lbs. at .03c		$ 693 72
858,645 lbs. at .015c		128 80
		$ 822 52
Timber in deck, cross ties	44,160 ft. B. M.	
Guard rail	5,653 ft. B. M.	
	49,813 ft. B. M. at $18.50	$ 921 54
Framing of 794.3 ft. of timber deck at 60c per ft		476 58
Cost of bolts, washers, etc		48 80
Total cost of deck		$ 1,446 92
49,813 ft. B. M. at $5.00		$ 249 07
794.3 ft. of track at 20c		158 86
Contract price of the superstructure	$76,185 00	
Add for increase of metal	294 40	
Total		$76,479 40
Cost of inspecting 1,157.83 tons at $1.10		1,273 61
Cost of inspecting 429.33 tons at 70c		300 53
		$78,053 54
Deduct cost of floor system		1,446 92
		$76,606 62

1½% on $76,606.62 for annual depreciation in superstructure, $1,149.10.

Synopsis of items involved in settlement—

(a) Annual cost of painting	$ 822 52
(b) Annual cost of renewing timber deck	249 07
(c) Annual cost of inspection and minor repairs	158 86
	$ 1,230 45
Annual depreciation	1,149 10
	$ 2,379 55

Amount to be paid Chicago, Santa Fe & California Railway Company by the Sanitary District of Chicago, $2,379.55 x 20 — $47,591.00."

ADJOURNMENT.

On motion of Mr. Mallette, seconded by Mr. Kelly, the Board then adjourned.

Joseph F. Haas

Clerk.

PROCEEDINGS

—OF THE—

BOARD OF TRUSTEES

—OF THE—

SANITARY DISTRICT OF CHICAGO.

AUGUST 9, 1899.

OFFICIAL RECORD

Published by authority of the Board of Trustees of the Sanitary District of Chicago.

REGULAR MEETING.

The four hundred and fiftieth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Wednesday, August 9, 1899, at 2 o'clock P. M.

On roll call Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, and Wenter—eight members, were present.

President Boldenweck then called the Board to order.

MINUTES.

The minutes of the regular meeting held August 2, 1899, were approved as printed by unanimous consent.

*VOUCHERS.

The Clerk presented the following vouchers :

ENGINEERING DEPARTMENT.

The Williams Typewriter and Supply Company (repairs)	$ 2 50
Orr & Lockett Hardware Company (hardware)	3 50
The Johnson Padding Company (scratch pads)	11 25
Peter Heer (sundries)	3 00
R. Seelig (flag poles, etc.)	9 07
Edmund Kandler (repairing transit)	21 45

Pearson Bros. (blue prints)	$ 10 32	
Eugene Dietzgen Company (blue prints)	47 10	
Burke & James (photo supplies)	20 82	
J. H. Alexander (rent, Lockport, July, 1899)	17 00	
Hans Isak (gauge reading, June, 1899)	10 00	
Hans Isak (gauge reading, July, 1899)	10 00	
The Waukesha Water Company (water)	16 13	
C. S. Austin (ice and water, January 1 to August 1, 1899)	17 50	
Henry Stuckart (hardware	4 03	
Isham Randolph (labor, building Section O office)	15 00	
Sibley Warehouse and Storage Company (storage to July 4, 1899	30 00	
Isham Randolph (postage stamps)	36 00	
Crew Levick Company (oils)	28 06	
The Baker Safe and Desk Company (desk, etc.)	18 50	
The A., T. & S. F. Ry. Co. (inspecting bridges)	39 63	
Arthur Dixon Transfer Company (moving cement department)	10 00	
J. S. Hull (expense)	16 07	
*Soper Lumber Company (stakes)	100 50	
*The Canal Commissioners (inspectors)	242 65	
*The C. & W. I. R. R. Co. (examining bridge plans, etc.)	310 00	
*H. B. Alexander (traveling and expense)	63 77	
*W. T. Keating (traveling and expense)	84 10	
		$ 1,197 95

LAW DEPARTMENT.

E. R. Nadelhoffer (typewriting)		35 00

GENERAL ACCOUNT.

Geo. B. Carpenter & Co. (paints, etc.)	$ 9 87	
Philip Provincial (labor, etc.)	21 90	
*E. Baggot Company (steam fitting and repairs)	63 25	
*Pullman's Palace Car Company (car service)	75 00	
*Fred Harvey (sundries)	200 00	
*Security Deposit Company (rent, general offices, August, 1899)	498 33	
*Pay roll (streams examination laboratory)	135 00	
		$ 1,003 35

POLICE DEPARTMENT.

Mrs. A. Hartwig (laundry, July, 1899)		4 00

MAINTENANCE ACCOUNT.

Chicago Engineer Supply Company (waste)	$ 9 23	
Thos. F. Ryan (nails, lumber, etc.)	21 16	
Barrett Hardware Company (hardware)	33 91	
*H. B. Alexander (expense)	76 74	
*Illinois Oil Station (oil)	76 42	
*Heggie Bros. (repairing boilers)	183 60	
*Weaver Coal Company (coal)	257 18	
*Weaver Coal Company (coal)	409 03	
		$ 1,067 27

*CONSTRUCTION ACCOUNT.

Lydon & Drews Company (building dock)	$ 253 65	
Mason, Hoge, King & Co. (Section S, railroad embankment)	1,352 23	
Hayes Bros. (Section 16, August 1, 1899)	5,594 75	
Heldmaier & Neu (Section E—C. T. T. R. R. Co.'s Bridge)	934 50	
Heldmaier & Neu (Section 12, Romeo Highway Bridge)	985 53	
Heldmaier & Neu (Section 17, August 1, 1899)	26,941 25	
Gahan & Byrne (Section 18, August 1, 1899)	25,622 80	
Gahan & Byrne (Section G, August 1, 1899)	1,387 12	

Gahan & Byrne (Section H, August 1, 1899)	$ 1,831 64	
Christie & Lowe (Section K, August 1, 1899)	1,933 20	
Halvorson, Richards & Co. (Section E, Summit-Lyons Bridge)	168 83	
McArthur Bros. Company (Section O, eight-track bridge)	4,047 75	
Hayes Bros. (Section M, pumping plant)	694 35	
Hayes Bros. (Section O, pumping plant)	592 64	
Hayes Bros. et al. (Section O—Pan Handle temporary bridge)	21 45	
Hayes Bros. et al. (Section O, August 1, 1899)	2,921 20	
Hayes Bros. et al. (Section N, August 1, 1899)	3,080 31	
Continental Bolt and Iron Works (Section O—P. H. temporary bridge)	269 76	
The Union Switch and Signal Co. (Section O—P. H. temporary bridge)	1,655 41	
Geo. M. Huss (Section O, pumping plant)	241 68	
Geo. M. Huss (Section O—Pan Handle temporary bridge)	980 75	
Geo. M. Huss (Section N—Santa Fe temporary bridge)	80 24	
McArthur Bros. Company (Section O—Eight-track bridge on account)	6,000 00	
		$87,491 04
Grand total		$90,798 61

* To be paid by warrants, with interest coupons attached, drawn against the Tax Levy for 1899.

Mr. Carter, seconded by Mr. Wenter, moved that the vouchers as read and shown above be approved and ordered paid.

On roll call the vote stood: Yeas—Messrs. Boldenweck, Braden (*except as to voucher in favor of Geo. M. Huss for $980 75 on which he voted nay*), Carter, Eckhart, Jones (*except as to vouchers in favor of the A., T. & S. F. Ry. Co. for $39 63, The Canal Commissioners for $242.65, the C. & W. I. R. R. Co. for $310 00 and Geo. M. Huss for $980 75, on which he voted nay*), Kelly, Mallette (*except as to voucher in favor of Geo. M. Huss for $980 75, on which he voted nay*), Wenter—eight (*except as above stated*). Nays—None (*except as above stated*).

Upon this result the President declared the motion carried.

REQUISITION.

The Clerk presented the following requisition:

No. 1098, Clerical Department (Stationery) $12 25

Mr. Mallette, seconded by Mr. Braden moved that Requisition No. 1098, as read and shown above, be allowed.

On roll call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette and Wenter—eight. Nays—none.

Upon this result the President declared the motion carried.

WEEKLY REPORT ON EMPLOYES.

The Clerk presented a report, in accordance with the Rules, showing the number of persons in the employ of the District for the week ending August 5, 1899, which was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, August 9, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the week ending August 5, 1899, as the same have been reported to me:

Engineering department	91
Maintenance account	9
Clerical department	5
Law department	8
Treasury department	1
Police department	28
General	9
Total employes	151

Respectfully submitted,

(Signed) JOSEPH F. HAAS,
Clerk."

MONTHLY REPORT FROM TREASURY DEPARTMENT.

The Clerk presented a report from the Treasury Department for the month of July, 1899, which was read, and, by unanimous consent, was ordered printed and placed on file.

The following is THE REPORT:

Receipts.

Balance on hand at date of last report		$ 505,626 50
From County Treasurer, Sanitary District Tax Account	$ 300,000 00	
From J. F. Haas, Clerk, Construction Account	13,769 25	
From J. F. Haas, Clerk, Construction Account	57 42	
From J. F. Haas, Clerk, Paul Redleski	2,395 48	
From J. F. Haas, Clerk, Land Account	112 50	
From Chicago National Bank, Interest Account	170 15	
Total cash received for month		$ 316,504 80
		$ 822,131 30

Disbursements.

Clerical Department	$ 7 50	
Engineering Department	261 33	
Law Department	13 00	
General Account	153 80	
Bond Account, bonds paid	150,000 00	
Interest and Premium Account, interest paid on bonds	226,556 00	
Police Department	12 28	
Maintenance Account	63 91	
Tax Warrants paid	279,682 20	
Interest paid on Tax Warrants	8,961 74	
Total cash disbursed		$ 665,711 76
Balance this date, in banks as per schedule endorsed hereon		156,419 54
		$ 822,131 30

Schedule.

Chicago National Bank	$ 130,480 76
National Bank of Illinois	25,938 78
Total	$ 156,419 54

CHICAGO, August 7, 1899.

(Signed) F. M. BLOUNT, *Treasurer.*
By S. P. BLOUNT, *Asst. Treasurer.*

ADJOURNMENT.

On motion of Mr. Mallette, seconded by Mr. Kelly, the Board then adjourned.

Joseph F. Haas
Clerk.

PROCEEDINGS

—OF THE—

BOARD OF TRUSTEES

—OF THE—

SANITARY DISTRICT OF CHICAGO.

AUGUST 16, 1899.

OFFICIAL RECORD

Published by authority of the Board of Trustees of the Sanitary District of Chicago.

REGULAR MEETING.

The four hundred and fifty-first regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Wednesday, August 16, 1899, at 2 o'clock P. M.

On roll-call Messrs. Boldenweck, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter — eight members, were present.

President Boldenweck then called the Board to order.

MINUTES.

The minutes of the special meeting, held August 5, 1899, and of the regular meeting held August 9, 1899, were approved as printed, on motion of Mr. Kelly, seconded by Mr. Mallette.

VOUCHERS.

The Clerk presented the following vouchers:

ENGINEERING DEPARTMENT.

W. M. Hughes (traveling)	$ 31 90	
G. M. Wisner (expense)	56 17	
*Isham Randolph (traveling and expense)	175 25	
		$ 263 32

CLERICAL DEPARTMENT.

A. P. Little (carbon paper)	4 00

GENERAL ACCOUNT.

S. L. Hanks (call bells)	$ 7 50	
D. Barrett & Co. (livery)	16 50	
The Inter Ocean (advertising for proposals)	19 05	
Chicago Journal (advertising for proposals)	20 25	
The Chicago Chronicle Company (advertising for proposals)	27 00	
The Chicago Times-Herald (advertising for proposals)	27 00	
The Chicago Democrat (advertising for proposals)	27 00	
Victor F. Lawson (advertising for proposals)	33 75	
The Tribune Company (advertising for proposals)	40 50	
The American Contractor Publishing Company (advertising for proposals)	18 60	
The Economist Publishing Company (advertising for proposals)	19 80	
The Construction News Company (advertising for proposals)	20 25	
The Engineering Record (advertising for proposals)	28 00	
The Engineering News Publishing Company (advertising for proposals)	28 80	
Chicago Arbeiter-Zeitung Publishing Company (advertising for proposals	13 50	
The Abendpost Company (advertising for proposals)	16 50	
Illinois Staats-Zeitung Company—The Equitable Trust Company, receiver (advertising for proposals)	19 38	
Freie Presse (advertising for proposals)	20 62	
Svenska Kuriren (advertising for proposals)	27 00	
The Chicago South Side Daily Sun (advertising for proposals)	13 50	
Calumet Publishing Company (advertising for proposals)	13 50	
The Chicago Citizen Company (advertising for proposals)	13 50	
The Chicago Eagle (advertising for proposals)	20 00	
Mayer & Miller (advertising for proposals)	20 00	
Standard Opinion Publishing Company (advertising for proposals)	20 25	
West Chicago Press Association (advertising for proposals)	27 00	
		$ 558 75

POLICE DEPARTMENT.

*E. J. Coen (expense)		$ 60 00

*CONSTRUCTION ACCOUNT.

Chicago Bridge and Iron Company (Taylor Street bridge)	$ 3,721 80	
Heldmaier & Neu (Section 12, Romeo bridge)	96 74	
Heldmaier & Neu (Section 17, sundries)	281 64	
Heldmaier & Neu (Section 17, pumping)	2,139 88	
Gahan & Byrne (Section 18, repairing crib)	1,099 65	
Gahan & Byrne (Section 18, August 15, 1899)	14,390 25	
Halverson, Richards & Co. (Section E, August 16, 1899)	3,023 05	
Christie & Lowe (Section K. August 16, 1899)	1,080 00	
Griffiths & McDermott (By-pass, taking up roadway)	262 31	
Geo. M. Huss (By-pass, unloading girders)	375 00	
Cambria Steel Company (Belt Railway temporary bridge)	793 40	
The A.. T. & S. F. Ry. Co. (Section G, Santa Fe bridge)	1,280 50	
C. T. T. R. R. Co. (Section E., temporary bridge)	121 00	
C. T. T. R. R. Co. (Section O—P. H. bridge)	320 13	
C. T. T. R. R. Co. (Taylor Street bridge)	9,683 16	
The Canal Commissioners (Section 18, repairing Lock No. 5)	107 00	
P. T. Dunn & Co. (lighting Lockport road)	14 00	
Geo. B. Carpenter & Co. (Section 18, repairing crib)	929 37	
H. Channon Company (Section 18, repairing crib)	238 29	
Jones & Laughlins, Ltd. (Section O—P. H. temporary bridge)	13 10	
Chicago Bridge and Iron Company (Section O—P. H. temporary bridge)	32 43	
T. P Inglesby (Section O—P. H. temporary bridge)	66 30	

Chicago Junction Railway Company (Section O—P. H. temporary bridge)	$ 249 20	
Schultz Brothers (Section O—P. H. temporary bridge)	426 36	
Edward Hines Lumber Company (Section O—P. H. temporary bridge)	2,148 86	
McDonnell Odometer Company (Section O, fittings, pumping plant)	29 68	
Henion & Hubbell (Section O, fittings, pumping plant)	42 45	
Lammert & Mann (Section O, belting, pumping plant)	58 92	
Weir & Craig Manufacturing Company (Section O, fittings, pumping plant)	119 63	
Advance Packing and Supply Company (Section O, belting, pumping plant)	159 88	
The Marsh & Bingham Company (Section O, lumber. pumping plant)	87 75	
The Marsh & Bingham Company (Section M. lumber, pumping plant)	107 72	
John Spry Lumber Company (Section M. lumber, pumping plant)	283 88	
James Smith (Section O, brick and laying, pumping plant)	275 00	
Heggie Brothers (Sections O and M, boilers, pumping plant)	461 85	
Isham Randolph (Section O, sundries, pumping plant)	131 90	
Isham Randolph (Section O, labor, pumping plant)	642 09	
Ajax Forge Company (S. F. R. R. crossings)	2,264 80	
		$47,558 97
Grand total		$48,445 04

* To be paid by warrants, with interest coupons attached, drawn against the Tax Levy for 1899.

Mr. Carter, seconded by Mr. Wenter, moved that the vouchers as read and shown above be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Carter, Eckhart (*except as to voucher in favor of Gahan & Byrne for $1,099.65, on which he voted nay*), Jones (*except as to voucher in favor of the Chicago Eagle for $20 00, on which he voted nay*), Kelly, Mallette, Smyth and Wenter—eight (*except as above stated.* Nays—none (*except as above stated*).

Upon this result the President declared the motion carried.

WEEKLY REPORT ON EMPLOYES.

The Clerk presented a report, in accordance with the Rules, showing the number of persons in the employ of the District for the week ending August 12, 1899, which was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, August 16, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the week ending August 12, 1899, as the same have been reported to me:

Engineering department	96
Maintenance	9
Clerical department	5
Law department	8
Treasury department	1
Police department	28
General	9
Total employes	156

Respectfully submitted,

(Signed) JOSEPH F. HAAS,

Clerk."

MONTHLY REPORT FROM CLERICAL DEPARTMENT.

The Clerk presented a report from the Clerical Department for the month of July, 1899, which was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, August 1, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I herewith submit the

report of the Clerical Department for the month of July, 1899.

The total expenditure of the District for the month was $456,363.66, of which amount the sum of $1,435.81 was paid in regular warrants; $166,283.91 in 1899 tax levy warrants, and the sum of $288,643.94 by the Treasurer of the District, for which no warrant was required. Of the amount paid by the Treasurer the sum of $279,682.20 was for 1898 tax warrants redeemed, and $8,961.74 for interest on warrants redeemed.

The total amount expended on account of and charged to the Clerical Department during the month of July was $15 for general office expenses;

There are no outstanding liabilities against the Clerical Department, and the expenditure for the present month will be about $1,200.

The total amount expended for account of, and charged to, the General Account during the month of July was $4,256.09, divided as follows:

Rent for July, 1899	$ 458 33
Printing	320 07
Streams examination	1,483 42
Salaries	815 08
Advertising	21 40
General expenses	1,657 79
Total	$4,256 09

The expenditures for the present month for the General Account will be about $3,000.

Of the total amount of 1896 Tax Levy Warrants issued, there is now outstanding the sum of $11,372.05; of the 1897 Tax Levy Warrants issued, there is now outstanding the sum of $15,000; of the 1898 Tax Levy Warrants issued, there is now outstanding the sum of 608,840.87; and of the 1899 Tax Levy Warrants there is now outstanding the sum of $1,151,538.91.

The following is a tabulated statement of total expenditures for the month of July, 1899.

Account.	Regular Warrants.	1899 Tax Levy Warrants.	Paid by Treasurer.	Total for Month.
Engineering Department	$ 362 50	$ 1,352 88	.....	$ 1,715 38
Construction	.....	158,433 37	.....	158,433 37
Clerical Department	15 00	.....	.....	15 00
Law Department	94 09	100 95	.....	195 04
Land	45 99	1,740 00	.....	1,785 99
Treasury Department	20 25	.....	.....	20 25
General	697 18	3,558 91	.....	4,256 09
Police Department	105 75	53 51	.....	159 26
Maintenance	95 05	744 29	.....	839 34
A. R. Reynolds, director	.....	300 00	.....	300 00
1898 Tax Warrants Redeemed	.....	.....	$279,682 20	279,682 20
Interest on Tax Warrants Redeemed	.....	.....	8,961 74	8,961 74
Total	$ 1,435 81	$166,283 91	$288,643 94	$456,363 66

Respectfully submitted,

(Signed) JOSEPH F. HAAS, *Clerk.*"

MONTHLY REPORT FROM LAW DEPARTMENT.

The Clerk presented a report from the Law Department for the month of July, 1899, which was read and, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT.

"CHICAGO, August 7, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I have the honor to

transmit the report of the Law Department for the month of July, 1899.

The following are the expenses and disbursements:

GENERAL EXPENSES.

Court costs	$ 100 95	
Expense account	65 39	
Printing and stationery	28 70	
		$ 195 04

LAND ACCOUNT.

Right of way by condemnation	$ 1,400 00	
Purchase	340 00	
Taxes, Will County	45 99	
		$ 1,785 99
Total		$ 1,981 03

All the land acquired during the month is situated in Will County. A considerable portion of the time of the department during the month was occupied in amending and simplifying the descriptions of the right of way of the District in the townships of Du Page, Lockport and Joliet, in Will County, and also in preparing, presenting and arguing petition for a reduction of the District taxes in said County. All the matters at issue between the Elgin, Joliet and Eastern Railroad have been satisfactorily agreed upon and closed up.

In the case of the Sanitary District of Chicago et al, appellants, vs. George P. Lee, appellee, a judgment was rendered for the cost against Fred M. Blount, in the Appellate Court after the case had been dismissed in the Circuit Court. A satisfaction piece was prepared by this Department, executed by the judgment creditor and filed with the Clerk.

Numerous documents in reference to the assignment of the Scherzer Rolling Lift Bridge Company's contract for a portion of the work on the Campbell Avenue Bridge on Section "O" have been prepared or approved by this Department.

An opinion has been prepared by this Department respecting the legal status of the Sanitary District with reference to the proposed subway at Thirty-fifth Street and Western Avenue.

In addition to the above, the preparation of the semi-annual property return and of releases to be executed by certain contractors, together with the routine work, have occupied the time of the Department.

Respectfully submitted,

(Signed.) CHARLES C. GILBERT,

Attorney."

REPORT IN REFERENCE TO RELEASE OF BOND ON CONTRACT FOR SUPERSTRUCTURE OF SUMMIT AND LYONS HIGHWAY BRIDGE ACROSS DESPLAINES RIVER AND ON CONTRACT FOR BUILDING CULVERTS AND GRADING ROMEO HIGHWAY.

Mr. Carter, Chairman, presented, and the Clerk read, a report from the Committee on Finance with reference to, and accompanied by, a communication from John C. Darst, agent of the Massillon Bridge Company, in regard to release of bond of said company on contract for superstructure of the Summit and Lyons Highway Bridge across Desplaines River, the said communication having been presented and referred to that committee at the meeting held January 11, 1899 (page 5422 of the Proceedings); and also in reference to, and accompanied by, a report from the Chief Engineer to the Committee, transmitting communication from Daniel Sullivan in regard to release of bond on contract for building culverts and grading Romeo Highway; the committee report recommending that the sureties on the bond of $1,200 of the Massillon Bridge Company and on the bond of $500 of Daniel Sullivan be released from further liability, the contractors, however, to remain liable thereon.

Mr. Wenter, seconded by Mr. Eckhart moved that the report be adopted and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—eight. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

CHICAGO, August 16, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—The Massillon Bridge Company, of Massillon, Ohio, has requested the cancellation of the bond given by said company, in the sum of twelve hundred dollars ($1,200.00) for the faithful performance of its contract

for the superstructure of the Summit and Lyons Highway Bridge.

A request has also been made by Daniel Sullivan, contractor for the Romeo Highway, including the trestles, the bond accompanying which amounted to five hundred dollars ($500.00), with the American Surety Company of New York as surety.

The Chief Engineer of the District has informed your Committee on Finance that the work provided for in both contracts as above mentioned respectively has been fully completed and in a satisfactory manner.

The Committee therefore recommends that the sureties on the bond of the Mas silon Bridge Company, in the sum of twelve hundred dollars ($1,200.00), and the surety on the bond of Daniel Sullivan, in the sum of five hundred dollars ($500.00), be released from further liability thereon, the contractors, however, to remain and continue liable thereon.

Respectfully submitted,

Z. R. CARTER,
Chairman,

B. A. ECKHART,
FRANK WENTER,
THOMAS KELLY,
Committee on Finance."

(Four enclosures.)

REPORT IN REFERENCE TO REMITTANCE AND WAIVER OF TIME PENALTY ON CONTRACT FOR SUPERSTRUCTURE OF WIRE MILLS ROAD BRIDGE.

Mr. Smyth, Chairman, presented, and the Clerk read, a report from the Committee on Engineering in reference to, and accompanied by, a communication from the Chief Engineer to the Commit tee in regard to the remittance and waiver of the time penalty on the con tract with the Wisconsin Bridge and Iron Company for the superstructure of the Wire Mills Road Bridge, the report recommending that the penalty on account of delay in completing said contract be remitted and waived.

Mr. Smyth, seconded by Mr. Kelly, moved that the report be adopted and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Carter, Eckhart, Jones, Kelly, Mallette Smyth and Wenter—eight. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, August 15, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN — Your Committee on Engineering begs leave to report that on August 2, A. D. 1899, (see page 5971 of the Proceedings), your committee made a report recommending the payment of four thousand three hundred eighty-one and sixty one-hundreths dollars ($4,381.-60) to the Wisconsin Bridge and Iron Company upon said company's complying with certain conditions mentioned in said report, and also recommending that the time penalty on account of delay in completing the superstructure of the Lockport Highway Bridge, crossing the River Diversion Channel on Section "16", be remitted in accordance with the recommendation of the Chief Engineer of the District.

Your Committee further reports that it was the intention to embody in said report a recommendation that the time penalty on account of delay in completing the contract, dated October 29th, A. D. 1898, for the construction of the superstructure of the Wire Mills Road Bridge be also remitted, but on account of some oversight, this was omitted from said report of August 2nd, 1899.

Your Committee therefore recommends that the time penalty on account of delay in completing said contract of October 29th, 1898, for the construction of the superstructure of said Wire Mills Road Bridge be, and the same is, hereby remitted and waived.

Respectfully submitted,

(Signed) THOMAS A. SMYTH,
Chairman.

J. P. MALLETTE,
Z. R. CARTER,
THOMAS KELLY,
B. A. ECKHART,
FRANK WENTER,
WM. BOLDENWECK,
Committee on Engineering

(One enclosure.)

REPORT IN REFERENCE TO PAYMENT OF SUNDRY CLAIMS UNDER AGREEMEMT WITH CANAL COMMISSIONERS.

Mr. Smyth, Chairman, presented, and the Clerk read, a report from the Committee on Engineering with reference to, and accompanied by, a communication from the Attorney of the District to the Committee in regard to the payment of certain claims under the agreement with the Canal Commissioners for alleged damages to certain boats and barges navigating the Illinois and Michigan Canal, the report being accompanied by sundry bills and communications in reference to the same and recommending that vouchers be drawn for the claims set forth and paid in the usual manner to the parties interested, on the execution of receipts in full by said parties.

Mr. Smyth, seconded by Mr. Mallette, moved that the report be adopted and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—eight. Nays—none.

Upon this result, the President declared the motion carried.

The following is

THE REPORT.

"CHICAGO, August 16, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—The Committee on Engineering reports that the sundry bills, statements and affidavits which have been handed to the Committee touching claims against the Sanitary District under its agreement with the Canal Commissioners of the Illinois and Michigan Canal, and were forwarded by the Superintendent of the Illinois and Michigan Canal for the consideration of your Honorable Body, are as follows:

J. M. Foster	$102 55
Martin J. Hogan	143 50
W. H. Wallace	203 06
J. M. Foster	40 00
W. H. Wallace	15 00

That these several amounts represent claims for demurrage and loss of property belonging to boats and barges working along the Illinois and Michigan Canal.

In view of the terms of the decree entered in the case of the Canal Commissioners of the Illinois and Michigan Canal vs. The Sanitary District of Chicago, and the agreement with said Canal Commissioners by the District, the Committee is of the opinion that the claims as herewith presented should be paid.

Your Committee, therefore, recommends that several vouchers be drawn for the claims as set forth above respectively, and that they be paid in the usual form in which payments are made to the parties interested, upon the execution of receipts in full by said parties respectively being given to the District.

Respectfully submitted,

(Signed) THOMAS A. SMYTH,
Chairman.
J. P. MALLETTE,
B. A. ECKHART,
THOMAS KELLY,
WM. BOLDENWECK,
Committee on Engineering."

(Thirteen enclosures.)

REPORT IN REFERENCE TO COMPLETION OF CONTRACT FOR FOUNDATIONS OF BEAR TRAP DAM AND COLLATERAL WORK.

Mr. Smyth, Chairman, presented, and the Clerk read, a report from the Committee on Engineering with reference to, and accompanied by, the final certificate of the Chief Engineer as to the completion of the contract with the Griffiths & McDermott Construction Company for the foundations of the Bear Trap Dam and Collateral Work, the report recommending that the President and Clerk be authorized and directed to make final payment to said contractors in the sum of $13,952.14, the sum found to be due in said certificate, upon the execution of a receipt in full in favor of the District by said contractors, releasing the District from any and all claims and demands arising upon said contract, except the claim for extras and additional compensation filed by said contractors with the Chief Engineer, as per copy of same attached to the report.

Mr. Smyth, seconded by Mr. Wenter, moved that the report be adopted and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Carter, Jones, Kelly, Mallette, Smyth and Wenter—seven. Nays—Mr. Eckhart—one.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, August 16, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago·

GENTLEMEN — Your Committee on Engineering presents herewith the final certificate of the Chief Engineer of the District in regard to the completion of the work on the Bear Trap Dam foundations on Section 15, in favor of the Griffiths & McDermott Construction Company, contractors on said work, under their contract dated June 1st., A.D. 1897, in the sum of thirteen thousand nine hundred and fifty-two and fourteen one-hundredths dollars ($13, 952.14); that the Committee has fully considered the subject matter of the completion of the work done under said contract and recommends as follows:

That the President and Clerk of the District be authorized and directed to make final payment to said contractors in the sum found due in the aforesaid final certificate hereto attached, to-wit: the sum of thirteen thousand nine hundred fifty two and fourteen one-hundredths dollars ($13,952.14), upon the execution of a receipt in full in favor of the District made by said contractors, releasing the District from any and all claims and demands of whatsoever kind or nature upon said contract, except the claim for extras and additional compensation filed by said contractors with the Chief Engineer of the District, a copy of which is hereto attached, referred to in the certificate aforesaid and claiming the sum of fifty thousand and eighty-three and thirty-seven one-hundredths dollars ($50,083.37).

Respectfully submitted,

(Signed) THOMAS A. SMYTH,
Chairman.
J. P. MALLETTE,
ALEX. J. JONES,
THOMAS KELLY,
FRANK WENTER,
WM. BOLDENWECK,
Committee on Engineering."

(Two enclosures.)

The following is

THE FINAL CERTIFICATE OF THE CHIEF ENGINEER:

"CHICAGO, August 15, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I hereby certify that the Griffiths & McDermott Construction Company has completed all of the work covered by its contract dated June 1, 1897, for work done on Bear Trap Dam foundations, etc., on contract Section 15. The work is done to the full satisfaction of the Chief Engineer and in accordance with the terms of the said contract with this District. These contractors have filed claims for extras on this work aggregating $50,083.37, upon which the Chief Engineer has not rendered a decision, no facts or arguments having as yet been presented to him to sustain the contentions of the contractors.

This certificate is given subject to any unaccrued or unmatured obligations imposed by the contract.

The statement of this contract is as follows:

Excavation, 8,873 cubic yards at $2.00...	$17.746 00
Concrete "A and C," 2,878.9 cubic yards at $3.60.....	10,364 04
Concrete "B," 2,532.3 cubic yards at $4.60.....	11,648 58
Concrete "D," 5,206.1 cubic yards at $3.00.....	15,618 30
Lump sum price for all metal and timber work in place, including all work involved therein.....	14,200 00
Total amount earned.....	$69,576 92
Total amount paid.....	55,624 78
Amount due and unpaid.....	$13,952 14

Respectfully submitted,

(Signed) ISHAM RANDOLPH,
Chief Engineer."

ADJOURNMENT.

On motion of Mr. Wenter, seconded by Mr. Jones, the Board then adjourned.

Joseph F. Haas
Clerk.

PROCEEDINGS

—OF THE—

BOARD OF TRUSTEES

—OF THE—

SANITARY DISTRICT OF CHICAGO.

AUGUST 17, 1899.

OFFICIAL RECORD.

Published by authority of the Board o Trustees of the Sanitary District of Chicago.

SPECIAL MEETING.

A special meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Thursday, August 17, 1899, at 2 o'clock P. M., pursuant to call.

On roll-call Messrs. Boldenweck, Eckhart, Jones, Mallette and Smyth—five members, were present.

President Boldenweck then called the Board to order.

CALL FOR MEETING.

The Clerk then read the call for the meeting which is as follows:

"CHICAGO, August 17, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—At the request of President Boldenweck, I hereby call a special meeting of the Board of Trustees of the Sanitary District of Chicago to be held in the rooms of the Board, Security Building, on Thursday, August 17, 1899, at 2 o'clock P. M., for the purpose of taking suitable action in memory of the late Honorable Richard Prendergast.

Respectfully submitted,

(Signed) THOS. S. BELL,

Acting Clerk."

APPOINTMENT OF COMMITTEE ON RESOLUTIONS.

Mr. Eckhart, seconded by Mr. Jones, moved that a committee of three be appointed by the Chair to prepare suitable resolutions in memory of the late Honorable Richard Prendergast, to be spread upon the records of this Board.

The motion prevailed unanimously and the Chair thereupon appointed Messrs. Eckhart, Jones and Smyth as said committee.

RECESS.

Mr. Smyth, seconded by Mr. Mallette,

moved that the Board then take a recess of five minutes.

The motion prevailed unanimously and it was so ordered.

REPORT AND RESOLUTION IN MEMORY OF HONORABLE RICHARD PRENDERGAST.

On reconvening Mr. Eckhart, Chairman of the Special Committee on Resolutions, presented, and the Clerk read, a report and resolution commendatory of the late Honorable Richard Prendergast, the report recommending that an engrossed copy of the resolution be furnished the family of the deceased, that the offices of the District be closed on the day of the funeral and that the Board and its officers attend the same in a body.

Mr. Eckhart, seconded by Mr. Jones, moved the adoption of the report and accompanying resolution.

The motion prevailed unanimously by a rising vote.

The following is

THE REPORT:

"CHICAGO, August 17, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN — Your committee, appointed to recommend suitable action by the Board in view of the death of the Honorable Richard Prendergast, present herewith resolutions for the adoption of the Board.

We recommend that the same be spread on the records of the Board, and that a copy be engrossed and furnished the family of the deceased.

We further recommend that the offices of the District be closed on the day of the funeral, that the Board and its officers attend same in a body, and that the President be authorized to make all suitable arrangements in the premises.

Very respectfully submitted,

(Signed) B. A. ECKHART,
Chairman.
ALEX. J. JONES,
THOS. A. SMYTH,
Committee on Resolutions."

The following is

THE RESOLUTION:

"WHEREAS, It has pleased an all-wise Providence to remove from our midst, while yet in the prime of life, Richard Prendergast, former Trustee and President of the Board of Trustees of the Sanitary District of Chicago from December 2, 1890, to December 8, 1891. Mr. Prendergast was called home at the age of 44 years, and was remarkable for having accomplished a vast amount despite enormous obstacles. At an early age he manifested marked ability as a student of the law, and bears the distinction of having been elevated to the office of County Judge of Cook County at the age of 27 years, only four years after his admission to the bar. For eight years he presided over that court with distinction, dignity and ability; and,

WHEREAS, Mr. Prendergast served as a Trustee of the Sanitary District of Chicago, from December 12th, 1889, to December 2nd, 1895, and was at all times recognized as an able, energetic and efficient officer in the discharge of his public duties; and,

WHEREAS, It is fit and proper that the Board of Trustees should give public expression to the esteem in which Mr. Prendergast was held by those with whom he associated in public affairs; therefore, be it

Resolved, That in the death of Richard Prendergast the Sanitary District of Chicago has lost one of its earliest and most efficient advocates and friends; his family a loving and affectionate father; and the citizens of Chicago one of their most prominent and brilliant citizens."

ADJOURNMENT.

On motion of Mr. Eckhart, seconded by Mr. Mallette, the Board then adjourned.

THOS. S. BELL,
Acting Clerk.

PROCEEDINGS

—OF THE—

BOARD OF TRUSTEES

—OF THE—

SANITARY DISTRICT OF CHICAGO.

AUGUST 23, 1899.

OFFICIAL RECORD

Published by authority of the Board of Trustees of the Sanitary District of Chicago.

REGULAR MEETING.

The four hundred and fifty-second regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Wednesday, August 23, 1899, at 2 o'clock P. M.

On roll-call Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Smith and Wenter — eight members, were present.

President Boldenweck then called the Board to order.

MINUTES.

The minutes of the regular meeting held August 16, and of the special meeting held August 17, 1899, were approved as printed on motion of Mr. Kelly, seconded by Mr. Jones.

VOUCHERS.

The Clerk presented the following vouchers:

*ENGINEERING DEPARTMENT.

Donald Fraser (inspecting bridges)	$ 66 51	
Ralph Modjeski (services)	226 15	
		$ 292 66

GENERAL ACCOUNT.

Chicago Journal (advertising for proposals)	$ 10 65	

The American Contractor Publishing Company (advertising for proposals)	$ 10 35	
The Construction News Company (advertising for proposals)	10 65	
The Engineering Record (advertising for proposals)	15 60	
The Engineering News Publishing Company (advertising for proposals)	15 90	
E. H. Sargent & Co. (glass bottles)	5 40	
Max Wehrmann (wooden cases)	14 75	
Whitall, Tatum & Co. (laboratory sundries)	40 20	
American Express Company (expressage)	42 45	
*United States Express Company (expressage)	95 02	
*Edwin O. Jordan (services and expense, July, 1899)	371 60	
*Arthur W. Palmer (services and expense, July, 1899)	403 75	
		$ 1,036 32
* CONSTRUCTION ACCOUNT.		
Lydon & Drews Company (By-pass, Chicago River)	$ 1,688 98	
McArthur Bros. Company (eight-track railroad bridge	3,363 72	
Gahan & Byrne (Section 16, gates in Dam No. 1)	92 74	
Gahan & Byrne (Section G. August 16, 1899)	1,200 00	
Gahan & Byrne (Section H, August 16, 1899)	2,668 00	
Christie & Lowe (Section K, August 16, 1899)	1,950 00	
Hayes Bros. et al. (Section N, August 16, 1899)	2,905 65	
Hayes Bros. et al. (Section O, August 16, 1899)	1,478 80	
Hayes Bros. (Section 16, grading Lockport Road)	140 11	
Heldmaier & Neu (Section E—C. T. T. R. R. Bridge)	1,115 63	
Mason, Hoge, King & Co. (Section 12, clearing tunnel)	37 83	
Geo. M. Huss (Section O—Pan Handle Bridge)	466 82	
Vilas Bros. (Section 15, paint Regulating Works)	84 77	
Allens Cornice and Corrugating Works (Section N, Santa Fe Bridge)	10 80	
		$ 17,263 35
Grand total		$ 18,592 33

* To be paid by warrants, with interest coupons attached, drawn against the Tax Levy for 1899.

Mr. Carter, seconded by Mr. Wenter, moved that the vouchers, as read and shown above, be approved and ordered paid.

On roll call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Smyth and Wenter—eight. Nays—none.

Upon this result the President declared the motion carried.

WEEKLY REPORT ON EMPLOYES.

The Clerk presented a report, in accordance with the Rules, showing the number of persons in the employ of the District for the week ending August 19, 1899, which was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, August 23, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the week ending August 19, 1899, as the same have been reported to me:

Engineering department	96
Maintenance account	9
Clerical department	5
Law department	8
Treasury department	1
Police department	28
General	9
Total employes	156

Respectfully submitted,

(Signed) JOSEPH F. HAAS,

Clerk."

MONTHLY REPORT FROM ENGINEERING DEPARTMENT.

The Clerk presented a report from the Engineering Department for the month of July, 1899, which, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, August 18, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I herewith transmit the report of the Engineering Department for the month of July, 1899, giving the detailed operations of the several divisions constituting the same.

The value of the construction work done was $157,510.67, divided as follows: Main Channel, $129,009.98; bridges, $28,515.41; general, $14.72. The engineering expenses were $11,475.51, divided as follows: Salaries, $9,714.14; supplies, etc., $1,761.37.

DIVISION OF CONSTRUCTION.

The weather during the first part of the month was unfavorable for work, owing to excessive rainfall. Rain was recorded on eight days during the month. The temperature varied between 64 degrees and 93 degrees Fahrenheit.

Chicago River Improvement—The contractors for the substructure of the By-pass made better progress during this month than any time previous, taking out 6,000 cubic yards of excavation, thus having completed about 69 per cent of this class of work; 1,050 lineal feet of piles were driven in the temporary roadway and 7,250 lineal feet in the coffer dams. For the temporary roadway, coffer dams and grillage, 338,000 feet B. M. of timber were used. Seven hundred and seventeen cubic yards of concrete were built. Seventy-two per cent of the temporary roadway was completed by August 1st; 81 per cent of the total coffer dam and 84 per cent of concrete work. The northeast corner of the Pennsylvania Company's freight house was removed during the month. Considerable delay to the work of excavation was occasioned by old docks and piles found upon the line of work. The most serious obstacle to the work of excavation, however, is the Metropolitan Elevated Railroad Water Tunnel, which crosses the line of work. Arrangements are being made to feed the tunnel temporarily by means of a 24-inch iron pipe. The freight buildings of the Pennsylvania Company at Adams Street, which were disturbed by the By-pass work, have been repaired and put in as good condition as they were before the work was begun. The Lydon & Drews Company employed an average of 125 men.

The contractors for the superstructure began work on the 17th and at the end of the month nine large girders were in place. These contractors also did some work between the 17th and 29th cutting out piles and timber in the temporary roadway which interfered with their work.

The contractors for the dredging of the Chicago River removed 49,900 cubic yards of excavation, consisting mostly of sludge. The dredging is now practically completed from Robey Street to Twelfth Street.

The contractors for the Taylor Street Highway Bridge have finished taking down the masonry abutments, have driven sheet piling for the west abutment and have excavated to City Datum.

The contractors for the C. T. T. R. R. Co.'s Bridge near Taylor Street are still at work on the temporary structure and have promised to move the bridge on August 13th.

The following vouchers have been issued for work on the Chicago River;

Lydon & Drews Company (regular, By-pass)	$22,094 63
Lydon & Drews Company (dock at Canal Street)	253 65
Lydon & Drews Company (dredging)	8,295 87
Chicago Bridge and Iron Company (Van Buren Street approach span)	4,050 00
C. T. T. R. R. Co. (C. T. T. R. R. Co. Bridge)	3,820 87
Total	$38,515 02

Section "O"—Excavation of the C. M. & N. R. R. Co.'s old right of way was started with a wheel-scraper force on the 6th and continued with some interruptions to the end of the month; 7,303 cubic yards were removed up to the 25th, including the amount taken out previous to July. The installing of the pumping plant on this section was completed on the 5th, when pumping was begun and continued to the 14th, at which time the pump had to be lowered. Pumping was resumed on the 25th, and continued to the end of the month. The removal of the Western Avenue Pontoon Bridge was completed on July 1st. Pile driving for the new Chicago Junction Railway Company's trestles was completed on the 10th, the framing on the 17th, and steel was all laid on them on the 20th. Four of the crossings over the Illinois Central and Santa Fe tracks were put in on Sun-

day, July 23rd. The Chicago Junction Railway Company ran northbound trains over the trestle on the 24th. The crossings were all in by the 31st.

Excavation for the substructure of the eight-track bridge was continued with a large scraper force throughout the entire month, and from the 19th, a night force worked in addition to the day force. A Peteler car plant began operations on the 24th, the cars being loaded by hand and hoisted to the north spoil bank by steam. The quantities removed during the month on this account are as follows: Main Channel prism, 6,440 cubic yards; bridge pit, outside of prism, 4,200 cubic yards; piles removed, 3,390 lineal feet.

The following vouchers were issued for work on Section "O:"

Hayes Bros. et al (excavation)....	$ 2,921 20
The Scherzer Rolling Lift Bridge Company (account eight-track bridge).....	3,062 50
McArthur Bros. Company (account eight-track bridge).....	4,047 75
P. Peterson (removing Pontoon Bridge).....	340 00
Hayes Bros. (pumping plant).....	510 37
Geo. M. Huss (pumping plant)....	136 72
Geo. M. Huss (pumping plant)....	241 68
Weir and Craig Manufacturing Company (pumping plant).....	103 37
Lammert & Mann (pumping plant)	125 00
Heggie Bros. (pumping plant)....	229 67
Chicago Star Construction and Dredging Company (Pan Handle temporary bridges).....	170 38
Geo. M. Huss (Pan Handle temporary bridges).....	573 05
Geo. M. Huss (Pan Handle temporary bridges).....	980 75
A. T. Wilcox (Pan Handle temporary bridges).....	90 02
Continental Bolt and Iron Works (Pan Handle temporary bridges)	269 76
P. Peterson (Pan Handle temporary bridges).....	18 49
Schultz Bros. (Pan Handle temporary bridges)	600 00
McArthur Bros. Company and Winston & Co. (Pan Handle temporary bridges)..	54 83
Total.....	$14,475 54

Section "N"—The shovel and train plant worked fifteen day shifts during the month, much time being lost on account of the pit being flooded by rain. The excavated material was spoiled on the right of way on the north bank of the Channel. The shovel and incline plant worked nineteen day shifts. The output of the two plants was 19,429 cubic yards. Excavation of the old Kedzie Avenue right of way was carried on by force account with a small wagon force throughout the month. The total amount removed by this method to July 31st was 8,411 cubic yards. The erection of a steel incline conveyor on the north bank of the east end of this section was begun on the 22nd and continued throughout the month. The work of removing the A., T. & S. F. R'y Co.'s temporary trestle was completed on the 14th. Most of the timber taken down from this structure was used in the C. J. Ry. Co.'s new trestle on Section "O," the remainder having been used at the Section "M" pumping plant.

The first train went over the C., M. & N. R. R. Co.'s new bridges and diversion at about noon on the 2d. A large gang of men was employed all month by the I. C. R. R. Co. ballasting tracks and taking up rails, ties, etc., from part of the old right of way. A galvanized iron cover was placed over the center pier of the Main Channel bridge. This work was done by the Allen's Cornice and Corrugating Works, who at the same time placed covers over the center piers of the A., T. & S. F. Ry. Co.'s bridges on Sections "N" and "G," and the C. T. T. R. R. Co.'s bridge over the Main Channel on Section "E."

A small force of men was employed by the A., T. & S. F. R'y Co. ballasting its new Twenty-sixth Street line tracks, and fixing up its interlocking system.

The following vouchers were issued for work on Section "N":

Hayes Bros., et al. (excavation).....	$4,470 24
Hayes Bros., et al. (excavation).....	3,080 31
Geo. M. Huss (account Santa Fe temporary bridge).....	80 24
Allen's Cornice and Corrugating Works (account sundry bridges, Sections "N," "G" and "E".....	37 50
	$7,668 29

Section "N"—The work of installing the pumping plant near the east end of this section was continued throughout the month and nearly completed. A discharge ditch was cut through the spoil bank of the District and along the Twenty-sixth Street line right of way towards Chicago River. A voucher for $169.15 was issued to Hayes Bros. for labor in connection with this plant.

Sections "L" and "K"—Excavation of the Belt Railway Company's embankment near the dividing line of these sections was continued by scraper force all month, the number of scrapers working day shifts being gradually increased from six to sixteen. In addition to the day force a night force with about six scrapers was worked from the 11th to the end of the month. The total amount excavated from the beginning of this particular contract to July 25th was 9,288 cubic yards, of which 8,588 cubic yards were vouchered to July 31st.

The following vouchers were issued on this account:

Christie & Lowe	$ 800 00
Christie & Lowe	1,833 20
Total	$ 2,633 20

Sections "H" and "G"—A scraper force with about nine (9) scrapers continued work near the dividing line of these sections for the entire month, weather permitting. The steam shovel and incline plant worked in day and night shifts all month. The combined output of both these plants was 6,316 cubic yards from Section "H" and 16,390 cubic yards from Section "G".

The following vouchers were issued for work on Sections "H" and "G":

Gahan & Byrne (Section H)	$ 1,831 64
Gahan & Byrne (Section G)	3,318 28
Gahan & Byrne (Section G)	1,387 12
Postal Telegraph Cable Company (moving wires)	600 00
Total	$ 7,137 04

Section "F"—The work of macadamizing the new Lyons-Summit Road was completed on the 22nd. The steel incline on this section has been taken apart and is being re-erected on Section "N". The steam shovel is being removed from this section and is said to be going to Section "N" also.

The following vouchers were issued for work done on Section "F":

C. L. Strobel (Lyons-Summit Road Bridge, Main Channel)	$ 5,104 17
Chicago Crushed Stone Company (Lyons-Summit Road Bridge, Main Channel)	2,600 72
Isham Randolph (Lyons-Summit Road Bridge, Main Channel)	15 00
Total	$ 7,719 89

Section "E"—Both the Petelar car and derrick plants used in removing rock on this section worked seventeen days during the month. The construction of revetment wall was continued throughout the month and 2,765 cubic yards of this class of work were vouchered.

Work on the substructure of the C. T. T. R. R. Co.'s permanent bridge over the Desplaines River was resumed on the 6th and continued with some interruptions to the end of the month. The setting of stone for the south abutment was begun on the 21st and coping was set on the 31st. The quantities vouchered on this account are as follows: Excavation, 200 cubic yards; sheet piling and bracing, 5,000 feet, B. M.; Portland cement concrete, 142 cubic yards; masonry, 60 cubic yards.

The following vouchers were issued for work done on Section "E":

Halvorson, Richards & Co. (excavation)	$ 1,088 72
Halvorson, Richards & Co. (account Lyons-Summit Road Bridge, Desplaines River)	168 83
Heldmaier & Neu (C. T. T. R. R. Co.'s Bridge, Desplaines River)	748 35
Heldmaier & Neu (C. T. T. R. R. Co.'s Bridge, Desplaines River)	934 50
Total	$ 2,940 40

Section 1—A final voucher, amounting to $250, was issued on the 13th to C. L. Strobel, on account of the superstructure of the Willow Springs Road Permanent Bridge.

Section 6—On the 13th a voucher for $16.25 was issued to Werden Buck for cement delivered in connection with the repairing of walls on this section.

Section 8—Work was resumed on solid rock excavation on the Main Channel at the Santa Fe Railroad crossing on June 28th and continued up to and including the 8th of July, at which time work was ordered stopped owing to the liability of damage from blasting and the close proximity of the work to the Santa Fe Railroad crossing. One steam drill and one derrick was used in the work and a daily average of fifteen laborers was engaged. A small force was engaged a portion of the month in cutting down the south approach of the embankment leading to the Santa Fe Bridge over the Main Channel. A force was engaged from the 10th to the end of the month in constructing a temporary highway road

south of the Main Channel, crossing the Santa Fe west of the old road, thence joining Stephens Street. This was done in order that travel would not be interfered with during the building of the subway at Stephens Street. One-yard dump cars handled by teams and an average of twenty laborers were engaged in this work. Widening of the embankment for the Santa Fe Company's change of line between Stephens Street and the depot was also done during the latter half of the month. The following quantities were vouchered on account of this work: Main Channel, solid rock, 500 cubic yards; subway excavation, 360 cubic yards; railway embankment, 1,000 cubic yards; grading Stephens Street temporary roadway, 1,934 cubic yards; surfacing same, fifty cubic yards.

The following vouchers were issued for work done on Section 8:

Mason, Hoge, King & Co. (excavation, etc.)	$ 1,352 23
Penn Bridge Company (final, A., T. & S. F. Ry. Co.'s Bridge, Desplaines River)	711 00
C. L. Strobel (final, Lemont Road Bridge, M. C.)	250 00
Total	$ 2,313 23

Section 12—Work on the Romeo Road Bridge consisted in cutting down the roadway at the west end of the bridge and placing the material excavated in the walled roadway at the east end. The bridge was swung on the 13th and was used by the contractors for hauling material to place. The following quantities were vouchered on account of this bridge: Excavation, 1,170 cubic yards; masonry, 26.9 cubic yards.

The following vouchers were issued to this account:

C. L. Strobel (final for superstructure)	$5,996 00
Heldmaier & Neu (substructure)	985 53
Total	$6,981 53

Section 14—At the pumping station both pumps were in operation during the greater portion of the month and were closed down only for necessary repairs. Boiler makers and brick layers worked in the No. 3 boiler on the 10th, and from the 14th to the 16th, inclusive, and on the No. 1 and No. 2 boilers on the 25th, during which time but one pump was in operation. At the end of the month, the elevation of water was —25.5 C. C. D., being 4.3 feet above grade.

Section 15—A voucher for $466.89 was issued to Christie & Lowe on the 13th, for extra work on Bear Trap Dam foundation.

Section 16—Work on this section was carried on with a slightly increased force over that reported last month, and averaged about 60 laborers and 18 wagon and scraper teams during the greater part of the month. Two steam drills were in use, and the material excavated by gangs of rockmen was loaded into one-yard dump cars and hauled to the embankment by team. Aside from the work of excavation, material was placed on approaches to the Lockport Road Bridge. The quantities vouchered were as follows: Fourteen thousand six hundred cubic yards of excavation; 700 cubic yards of broken stone on Lockport Road.

The superstructure for the Lockport Road Bridge was completed on the 4th.

A portion of the floor for the Wire Mills Road Bridge remains to be laid, the reason given for not having it completed is the difficulty in procuring lumber.

The following vouchers were issued for work done on this section:

Hayes Bros. (excavation)	$5,594 75
Wisconsin Bridge and Iron Company (final, on Lockport Road Bridge)	4,381 60
Total	$9,976 35

Section 17—With the exception of a few days delay by rain, the weather was favorable and allowed the work to be carried on without further interruption. The plant used in excavating the new river channel consisted of one steam shovel and derrick, two locomotives, seven drills and two steam pumps, all of which were run in double shifts. In addition to this were two steam and one car team hoists and four steam drills. On the 18th work was carried on in double shifts at the south end of the section and continued to the end of the month. The dredge and mud pumps were run day and night, though shutdowns were frequent, owing to breaking of machinery. On the 10th a derrick for handling skips loaded with mud from the dredge and hauled thereto by scows, was installed, and was in operation day and night the balance of the month. In the tail race, excavation was handled by a large derrick and removed by a loco

motive, and after the 15th forces were run in double shifts. A channeler and two steam drills were run throughout the month at this point, the channeler running both day and night. The work done was as follows: Solid rock excavation, 39,000 cubic yards; earth excavation, 31,000 cubic yards; tail race excavation, 5,800 cubic yards; completion of cribbing, 52,000 feet B. M.; sinking and filling cribbing, 4,200 cubic yards; raising tow-path retaining wall, 400 cubic yards; raising tow-path, 400 cubic yards. Vouchers to the amount of $34,441.25 were issued to the contractors for this work.

Section 18—Work was continued on conduit and dam from the 1st to the 6th and from the 28th to the end of the month, with an average force of 84 men. The amount of work done at this point is as follows: Twenty-five per cent of dam; 20 per cent of conduit; excavation, 900 cubic yards; extra concrete, 210 cubic yards; coffer-dam, 170 lineal feet. Excavation in Main Channel was prosecuted with an average force of 109 men and performed the following work: Eight thousand one hundred cubic yards excavation; 8,000 cubic yards levee embankment; 600 lineal feet levee construction and removal; dam removed, 15 per cent; overhaul, 198,000 cubic yards. The material excavated from the conduit and dam pits was placed in the I. & M. Canal rip-rap and amounted to 1,200 cubic yards.

The excavation for the C., R. I. & P. R. R. Co.'s Bridge was continued to the 19th and 1,000 cubic yards were handled. One derrick, with boiler and hoist engine, was added to the plant during the month, and an average of 172 men per working day were employed.

The following vouchers were issued for work done on this section:

Gahan & Byrne (miscellaneous)...	$25,622 80
The Canal Commissioners (account Lock No. 5).....	450 00
	$26,072 80

DIVISION OF DRAFTING AND DESIGNING.

The regular platting was continued on the contour maps between Lockport and Willow Springs, the 50 feet scale maps of the Chicago River, and the atlas of the right of way. Some work was done on the maps to be used in the construction of the relief map on the Main Channel.

The following drawings, etc., were made: Topographical maps of the Desplaines River and vicinity, from Joliet to Chanahan; two sets of the 200 feet Chicago River maps, showing length and width of bridges, piers, etc.; map showing proposed location of water-power plant near Lockport and profile of same; and a plan of a cement warehouse to be constructed at Robey Street and the Santa Fe elevator tracks for use on work at eight-track bridge.

In the Bridge Department office the first part of the month was taken up in finishing the plans for the tow-path bridge, the remainder being spent on plans for the temporary work at the Pan Handle bridge.

The work of this branch of the office force, exclusive of the Bridge and Drafting Department, was a continuation of the work reported for June.

The Cement Laboratory was removed from the Rialto Building to Room 509-510 Security Building on the first of the month.

DIVISION OF RECORDS.

The work of this Division has been carried on in the usual manner.

I estimate the expenses of this Department for the month of August will be $200,000.00.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,

Chief Engineer."

SANITARY DISTRICT OF CHICAGO—ENGINEERING DEPARTMENT.

CLASSIFIED STATEMENT OF EXPENDITURES DURING THE MONTH OF JULY, 1899.

Classification.	*Engineering Expenses.*			Construction.
	Salaries.	Supplies, Etc.	Total.	
Maps and Plans for General Use of Sanitary District	$ 240 30	$ 25 31	$ 265 61	.....
Chicago River Survey	120 00	.....	120 00	.....
Chicago River Improvement	1,606 00	41 95	1,647 95	$30,644 15
Right of Way	167 80	15 17	182 97	.....
Flood Measurements	202 10	20 00	222 10	.....
Disposal Works and Joliet Project	2,264 54	475 90	2,740 44	66,560 97
Regular Construction—Main Channel and River Diversion	1,345 19	174 66	1,519 85	25,093 22
Wire Mills Road Permanent Bridge over Main Channel, Sec. 16	141 67	5 00	146 67	.....
Lockport Road Permanent Bridge over Main Channel, Sec. 16	98 33	59 13	157 46	4,381 60
Romeo Road Permanent Bridge over Main Channel, Sec. 12	71 38	113 86	185 24	6,981 53
Lemont Road Permanent Bridge over Main Channnel, Sec. 8	5 00	.....	5 00	250 00
A., T. & S. F. Ry. Co.'s Permanent Bridge over Desplaines River, Sec. 8	.....	.....	.....	—13,058 25
A., T. & S. Fe Ry. Co.'s Permanent Bridge over Main Channel, and track deviation, Sec. 8	279 00	63 09	342 09	1,076 60
Willow Springs Road Permanent Bridge over Main Channel, Sec. 8	.....	92	92	250 00
C. T. T. R. R. Co.'s Permanent Bridge over Main Channel, Sec. E	.....	.....	.....	9 37
C. T. T. R. R. Co.'s Temporary Bridge over Desplaines River, Sec. E	40 00	2 00	42 00	.....
C. T. T. R. R. Co.'s Permanent Bridge over Desplaines River, Sec. E	140 00	2 50	142 50	1,682 85
Lyons-Summit Road Permanent Bridge over Main Channel, Sec. F	100 00	77 12	177 12	7,719 89
Lyons-Summit Road Permanent Bridge over Desplaines River, Sec. E	60 00	6 75	66 75	.....
A., T. & S. Fe Ry. Co.'s Permanent Bridge over Main Channel and track deviation, Sec. G	.....	.....	.....	609 38
C. & W. I. Belt Ry's Temporary Bridge over Main Channel, Sec. K	60 00	4 00	64 00	.....
C. & W. I. Belt Ry's Permanent Bridge over Main Channel, Sec. K	105 00	314 50	419 50	.....

Pumping Plant, Sec. M	120 00	12 00	132 00	169 15
A., T. & S. F. Ry. Co.'s Temporary Bridge over Main Channel, Sec. N	.....	.....	.....	80 24
A., T. & S. Fe Ry. Co.'s Permanent Bridge over Main Channel, Sec. N	40 00	11 65	51 65	9 87
C., M. & N. R. R. Co. 's Permanent Bridges over M. C. and Kedzie Avenue and track deviation, Sec. N	80 00	.....	80 00	9 38
Western Avenue Temporary Bridges over Main Channel, Sec. O	10 00	.....	10 00	340 00
Pan Handle R. R. Co.'s Temporary Bridges over Main Channel, Sec. O	377 50	151 15	528 65	3,350 53
Pan Handle R. R. Co.'s Permanent Bridge over Main Channel, Sec. O	426 00	5 98	431 98	2,572 50
Pumping Plant, Sec. O	450 00	42 06	492 06	1,346 81
Taylor Street Bridge over Chicago River	232 50	.....	232 50	.....
C. T. T. R. R. Co.'s Bridge over Chicago River	307 50	30 27	337 77	3,820 87
Van Buren Street Approach Span, Chicago River	.....	.....	.....	4,050 00
Tow Path Permanent Bridge, Sec. 18	70 00	.....	70 00	.....
Jefferson Street Temporary Bridge, Sec. 18	45 00	.....	45 00	.....
Jefferson Street Permanent Bridge, Sec. 18	60 00	.....	60 00	.....
C., R. I. & P. R. R. Co.'s Permanent Bridge, Sec. 18	45 00	.....	45 00	.....
Mortar, Sand and Cement Tests	279 33	74 45	353 78	.....
Photographs of Works	125 00	28 10	153 10	.....
State Inspection of Canal	.....	3 85	3 85	.....
Totals	$9,714 14	$1,761 37	$11,475 51	$ 147,950 16

VALUES— STATEMENT SHOWING CONDITION OF

Designation.	Amount earned during July, 1899. Main Channel.	Bridges.	General.	Total.	Amount earned to date. Main Channel.	River Diversion.	Bridges.	General
Chicago River Imp'ment	$34,985 65			$34,985 65	$ 338,188 49			
O	9,871 46	$ 3,775 28		13,646 74	360,434 56		$ 81,382 79	
N	8,109 14	80 24		8,189 38	219,376 09		3,525 02	
M.	169 15			169 15	158,184 21			
L					217,287 06			
K	3,620 65			3,620 65	299,920 19		4,262 38	
I.					289,846 00			
H	1,881 64			1,881 64	301,573 41			
G	4,705 40			4,705 40	394,889 20			
F					341,404 40	$ 75,627 73		
E	1,244 25			1,244 25	747,797 28	29,091 91	15,455 98	$ [illegible]
D					592,039 29	2,880 54		
C.					443,342 59	40,135 18		[illegible]
B					438,986 42	59,451 34		[illegible]
A					801,584 08	115,741 73		
1.					1,210,660 37	143,908 29	1,967 00	[illegible]
2.					877,695 00	63,190 86		[illegible]
3.					840,952 93	338 42		
4.					975,248 98	83,304 43		[illegible]
5.					749,207 28	6,653 64		
6.	—26 45			—26 45	687,835 61	55,911 37		
7.					722,544 74	66,193 19		[illegible]
8.	315 00			315 00	889,149 43	89,683 90	19,853 89	[illegible]
9.					794,838 28	23,573 72	1,012 39	
10.					921,454 79	78,729 58		[illegible]
11.					797,717 50	43,854 42		
12.					837,660 69	21,768 52	1,136 87	
13.					819,388 19			
14					931,457 10			
15.					551,915 85	117 61		
16.	5,694 00			5,694 00	52,740 55		1,500 00	
17.	30,790 00			30,790 00	242,170 71			
18.	27,233 20			27,233 20	143,208 14		3,556 42	
Disposal Wks. at Lockp't	466 89			466 89	254,448 02			
Repairing I. & M. Canal.								[illegible]
Van Buren St. Approach Span, Chicago River...		4,050 00		4,050 00			4,050 00	
Taylor St. Br. over Chicago River							12,666 66	
C. T. T. R. R. Co.'s Br. over Chicago River....		3,820 87		3,820 87			45,904 58	
S. W. Blvd. Br., over M. C., Sec. O							149,915 80	
Pan Handle Br., over M. C., Sec. O		2,940 00		2,940 00			67,208 09	
C.,M. & N. R. R. Co.'s Br., over M. C., Sec. N,....		9 38		9 38			160,134 67	
C.,M. & N. R. R. Co.'s Br., over Kedzie Av., Sec. N							14,515 47	
Kedzie Av. Br., over M. C., Sec. N							43,118 58	
A., T. & S. F. R. R. Co.'s Br., over M. C., Sec. N.		9 37		9 37			79,501 90	
Belt Ry. Br. over M. C., Sec. K								
A., T. & S. F. R. R. Co.'s Br., over M. C., Sec. G.		609 38		609 38			112,021 84	
A., T. & S. F. R. R. Co.'s Br., over D. R., Sec. F.							19,210 73	
Lyons-Summit Road Br., over D. R., Sec. E.....		192 95		192 95			13,171 73	
Lyons-Summit Road Br., over M. C., Sec. F.....		7,719 89		7,719 89			41,098 5[illegible]	
C. T. T. R. R. Co.'s Br., over M. C., Sec. E.....		9 37		9 37			50,682 7[illegible]	
C. T. T. R. R. Co.'s Br., over D. R., Sec. E.....		1,922 60		1,922 60			5,665 7[illegible]	
Willow Spgs. Highway Br., over M. C., Sec. 1		250 00		250 00			22,968 5[illegible]	
A., T. & S. F. R. R. Co.'s Br., over M. C., Sec. 8.		1,230 40		1,230 40			105,485 [illegible]	
A., T. & S. F. R. R. Co,'s Br., over D. R., Sec. 8.		—13,058 25		—13,058 25			23,625 [illegible]	
Lemont Highway Br., over M. C., Sec. 8.....		250 00		250 00			21,227 [illegible]	
Lemont Highway Br., over D. R., Sec. 8.....							22,329 [illegible]	

CONSTRUCTION CONTRACTS, AUGUST 1, 1899.

Total.	Amount Paid to Date.	REMAINING TO BE EARNED.			REMAINING TO BE PAID ON VOUCHERS.		
		Main Channel.	Bridges.	Total.	Retained Percentages.	Unpaid Vouchers.	Total.
$ 338,188 49	$ 284 074 59	$172,458 36	.....	$ 172,458 36	$ 23,469 75	$ 30,644 15	$ 54,113 90
441,817 35	432,704 45	21,205 32	.....	21,205 32	2,921 27	6,191 63	9,112 90
222,901 11	208,130 65	37,617 83	.....	37,617 83	11,609 91	3,160 55	14,770 46
158,184 21	158,184 21	.....	.....	.....	.....	.....	.....
217,287 06	217,287 06	819 32	.....	819 32	.....	.....	.....
295,182 57	292,361 92	4,267 60	.....	4,267 60	987 45	1,833 20	2,820 65
289,846 00	289,846 00	.....	.....	.....	.....	.....	.....
301,573 41	299,741 77	17,338 23	.....	17,338 23	.....	1,831 64	1,831 64
394,889 20	393,502 08	3,813 38	.....	3,813 38	.....	1,387 12	1,387 12
417,032 13	375,082 09	1,918 34	.....	1,918 34	34,103 38	7,846 75	41,950 13
792,605 17	688,310 92	3,114 08	.....	3,114 08	96,764 96	7,529 29	104,294 25
594,919 83	594,919 83	.....	.....	.....	.....	.....	.....
484,259 40	484,259 40	.....	.....	.....	.....	.....	.....
498,587 76	498,587 76	.....	.....	.....	.....	.....	.....
917,325 81	917,325 81	.....	.....	.....	.....	.....	.....
1,356,585 66	1,349,690 00	.....	.....	.....	6,179 88	715 88	6,895 66
940,975 86	940,975 86	.....	.....	.....	.....	.....	.....
841,291 35	841,291 35	.....	.....	.....	.....	.....	.....
1,058,638 66	1,058,638 66	.....	.....	.....	.....	.....	.....
755,860 92	755,860 92	.....	.....	.....	.....	.....	.....
743,746 98	743,730 73	.....	.....	.....	.....	16 25	16 25
797,495 93	797,495 93	.....	.....	.....	.....	.....	.....
1,001,267 28	1,000,637 28	9,627 66	.....	9,627 66	354 37	275 63	630 00
819,424 30	819,424 30	.....	.....	.....	.....	.....	.....
1,009,136 70	1,009,136 70	.....	.....	.....	.....	.....	.....
841,571 92	841,571 92	.....	.....	.....	.....	.....	.....
860,566 08	860,566 08	.....	.....	.....	.....	.....	.....
819,388 19	819,388 19	.....	.....	.....	.....	.....	.....
931,457 10	931,457 10	.....	.....	.....	.....	.....	.....
552,033 46	552,033 46	.....	.....	.....	.....	.....	.....
54,240 55	42,830 61	12,928 50	.....	12,928 50	6,427 69	4,982 25	11,409 94
242,170 71	192,745 90	55,510 60	.....	55,510 60	21,483 56	26,941 25	48,424 81
146,759 56	105,876 30	242,267 40	.....	242,267 40	17,447 96	23,435 30	40,883 26
254,443 02	247,246 87	6,112 09	.....	6,112 09	6,729 26	466 89	7,196 15
18,052 85	18,052 85	.....	.....	.....	.....	.....	.....
4,050 00	.....	.....	$15,445 87	15,445 87	.....	4,050 00	4,050 00
12,666 66	12,666 66	.....	71,040 20	71,040 20	.....	.....	.....
45,904 58	45.904 58	.....	293,564 09	293,564 09	.....	.....	.....
149,915 80	145,687 58	.....	6,252 54	6,252 54	4,228 22	.....	4,228 22
67,208 09	63,673 09	.....	477,970 24	477,970 24	962 50	2,572 50	3,535 00
160,134 67	160.125 29	.....	.....	.....	.....	9 38	9 38
14,515 47	14,515 47	.....	.....	.....	.....	.....	.....
43,118 58	43,118 58	.....	250 00	250 00	.....	.....	.....
79,501 90	79,492 53	.....	.....	.....	.....	9 37	9 37
.....	.....	.....	167,292 50	167,292 50	.....	.....	.....
112,071 84	112,062 46	.....	.....	.....	.....	9 38	9 38
19,210 73	19,210 73	.....	.....	.....	.....	.....	.....
13,171 72	12,830 82	.....	.....	.....	172 07	168 83	340 90
41,098 57	38,497 85	.....	.....	.....	.....	2,600 72	2,600 72
50,683 75	50,673 38	.....	.....	.....	.....	9 37	9 37
5,665 70	4,442 70	.....	12,506 05	12,506 05	288 50	934 50	1,223 00
22,968 52	22,968 52	.....	.....	.....	.....	.....	.....
105,485 74	71,109 85	.....	.....	.....	21,530 89	12,845 00	34,375 89
23,625 07	23,275 07	.....	8,096 22	8,096 22	350 00	.....	350 00
21,227 39	21,227 39	.....	.....	.....	.....	.....	.....
22,329 89	22,329 89	.....	.....	.....	.....	.....	.....

VALUES— STATEMENT SHOWING CONDITION OF

Designation.	Amount earned during July, 1899.				Amount earned to date.			
	Main Channel.	Bridges.	General.	Total.	Main Channel.	River Diversion.	Bridges.	General.
Western Stone Co.'s Br., over D. R., Sec. 10	.....	.....	.....	.....	.....	.....	$ 15,983 63	.....
Romeo Highway Br. over M. C., Sec. 12	.....	$ 7,122 33	.....	$ 7,122 33	.....	.....	28,338 55	.....
Lockport Highway Br. over M. C., Sec. 16	.....	5,061 60	.....	5,061 60	.....	.....	15,303 68	.....
Wire Mills Rd. Br., over M. C., Sec. 16	.....	.....	.....	.....	.....	.....	10,058 28	.....
E., J. & E. R. R. Co.'s Br., N. of Joliet	.....	.....	.....	.....	.....	.....	41,984 62	.....
Cass St. Br. over M. C., Sec. 18	.....	.....	.....	.....	.....	.....	.....	.....
Jefferson St. Br. over M. C., Sec. 18	.....	.....	.....	.....	.....	.....	.....	.....
C. R. I. & P. R. R. Bridge over Desp. R'r, Sec. 18	.....	2,500 00	.....	2,500 00	.....	.....	3,250 00	.....
Crib work at Joliet	.....	.....	—$14 72	—14 72	.....	.....	.....	$32,139 [illegible]
Totals	$129,009 98	$28,515 41	—$14 72	$157,510 67	$ 19,236,137 43	$1,000,156 38	$1,263,145 08	$71,889 [illegible]

CONSTRUCTION CONTRACTS, AUGUST 1, 1899—*Continued*.

Total.	Amount Paid to Date.	REMAINING TO BE EARNED.			REMAINING TO BE PAID ON VOUCHERS.		
		Main Channel.	Bridges.	Total.	Retained Percentages.	Unpaid Vouchers.	Total.
$ 15,963 63	$ 15,963 63	.....	.....	.....	.....	.....	.....
28,338 55	25,782 48	.....	.....	.....	$ 1,570 54	$ 985 53	$ 2,556 07
15,303 68	10,222 08	.....	.....	.....	87 50	4,994 10	5,081 60
10,058 28	10,058 28	.....	$ 4,703 02	$ 4,703 02	.....	.....	.....
41,984 62	41,984 62	.....	.....	.....	.....	.....	.....
.....	.....	.....	38,265 75	38,265 75	.....	.....	.....
.....	.....	.....	45,627 25	45,627 25	.....	.....	.....
3,250 00	656 25	.....	30,078 00	30,078 00	406 25	2,187 50	2,593 75
32,189 90	32,189 90	.....	.....	.....	.....	.....	.....
$ 21,571,318 91	$ 21,164,609 14	$588,999 21	$1,171,091 73	$1,760,090 94	$258,075 86	$148,633 91	$406,709 77

QUANTITIES— STATEMENT SHOWING CONDITION OF CON

DESIGNATION.	AMOUNT DONE DURING JULY, 1899. Main Channel. Glacial Drift. Cu. Yds	Solid Rock. Cu. Yds	Piles Lin. Ft.	Masonry and Concr't. Cu. Yds.	TOTAL DONE TO Main Channel. Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds.	Retaining Wall. Cu. Yds.
Chicago River Improvement	55,900		8,300	717	875,700		
O	13,743				1,657,413		
N	19,429				927,028		
M					728,180		
L					1,102,980		
K	6,583				1,155,614		
I					1,159,384		
H	6,316				1,034,224		
G	16,390				1,381,868		
F					1,093,047	37,448	
E					1,906,538	207,091	
D					1,934,890	87,030	
C					1,881,545		
B					1,570,036	15,586	
A					2,560,648	13,312	
1					1,282,267	554,326	68,256
2					724,905	483,750	38,506
3					425,705	760,778	14,039
4					1,096,746	262,428	68,169
5					952,526	378,609	56,059.1
6					683,248	549,355	30,361.7
7					181,721	890,939	6,179.9
8		500			50,170	1,145,252.1	2,874.9
9					76,692	1,003,769	
10					31,743	1,141,890	
11					44,021	989,711	
12					44,030	998,709	9,286.94
13					33,810	1,033,665	10,838
14					380,165	1,022,796	23,567.8
15					35,324	647,039	44,811.2
16	4,867	9,733			13,988	117,867	
17	15,400	32,300		400	155,200	237,800	800
18	4,050	4,950		210	62,600	48,550	
Disposal Works at Lockport						9,538	
Van Buren Street App. Span, Chicago River							
Taylor Street Bridge over Chicago River							
C. T. T. R. R. Co.'s Bridge over Chicago River							
Southwest Boulevard Bridge over Main Channel, Sec. O					9,873.5		
Panhandle Bridge over Main Channel, Sec. O	4,200				11,000		
C., M. & N. R. R. Co.'s Bridge over Main Channel, Sec. N					17,849		
C., M. & N. R. R. Co.'s Bridge over Kedzie Avenue, Sec. N					2,869		
Kedzie Avenue Bridge over Main Channel, Sec. N					7,101		
A., T. & S. F. R. R. Co.'s Bridge over Main Channel, Sec. N					7,445		
Belt Railway Co.'s Bridge over Main Channel, Sec. K							
A., T. & S. F. R. R. Co.'s Bridge over Main Channel, Sec. G	367				85,253		
Lyons-Summit Road Bridge over Desplaines River, Sec. E					5,924		
Lyons-Summit Road Bridge over Main Channel, Sec. F					2,270		
C., T. T. R. R. Co.'s Bridge over Main Channel, Sec. E					4,748.1		
C., T. T. R.R. Co.'s Br. over Desplaines River, Sec. E	200			202	800		
Willow Springs Highway Bridge over Main Channel, Sec. 1					2 084		
A., T. & S. F. R. R. Co.'s Bridge over Main Channel, Sec. 8		360			98,315	1,380	
Lemont Highway Bridge over Main Channel, Sec. 8					2,006	202	
Romeo Highway Bridge over Main Channel, Sec. 12	1,170			26.9	1,170	1,320	
Lockport Highway Bridge over Main Channel, Sec. 16						526	

STRUCTION CONTRACTS AUGUST 1, 1899.

DATE.				ESTIMATED REMAINING TO BE DONE.				PERCENTAGE COMPLETED.				
River Diversion.		Piles. Lineal Feet.	Masonry and Concr't. Cu. Yds.	*Main Channel.*								
Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds.			Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds	Piles & R. W.	Mas'y & Concr't Cu. Yds	Main Channel Excava'n	River Divers'n.	Ret. Wall	Masonry and Concr't	Piles.
.....	.....	62,200	2,967	170,000	.....	14,518	4,362	83.74	.....	....	40.48	91.40
.....	.....	.....	.....	165,622	.....	.....	.....	90.91	.....	....	.....	.....
.....	.....	.....	.....	188,281	.....	.....	.....	83.11	.....	....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	....	.....	.....
.....	.....	.....	.....	4,159	.....	.....	.....	99.62	.....	...	.....	.....
.....	.....	.....	.....	24,970	.....	.....	.....	97.88	.....	....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	....	.....	.....
.....	.....	.....	.....	59,787	.....	.....	.....	94.53	.....	....	.....	.....
.....	.....	.....	.....	14,086	.....	.....	.....	98.99	.....	....	.....	.....
179,447	.....	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
95,718	.....	.....	.....	12,496	.....	.....	.....	99.41	.....	....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	....	.....	.....
170,788	.....	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
212,486	.....	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
359,353	.....	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
174,655	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
119,234	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	100	.....	.....
106,803	17,857	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
12,256	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
118,647	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
97,917	43,102	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
57,902	99,399	.....	.....	.....	15,282	.....	.....	98.70	100	100	.....	.....
40,763	16,873	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
30,313	58,276	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
12,699	15,677	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
11,739	7,475	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	100	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	100	.....	.....
619	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
.....	.....	.....	.....	.....	47,133	.....	.....	73.74	.....	....	.....	.....
.....	.....	.....	400	132,270	90,760	.....	.....	63.81	.....	....	100	.....
.....	.....	.....	3,008	29,200	93,580	*6,300	.....	56.75	.....	00	100	.....
.....	.....	.....	11,365.70	.....	567	.....	.....	94.39	.....	....	100	.....
.....	.....	.....	.....	2,800	.....	.....	784	00	.....	....	00	00
.....	.....	.....	.....	1,500	.....	10,840	1,041	00	.....	....	00	00
.....	.....	.....	.....	12,000	.....	44,840	8,040	00	.....	....	00	00
.....	.....	10,813	4,421.94	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	.....	.....	12,000	.....	29,600	14,360	47.82	.....	....	00	00
.....	.....	5,948	4,236.77	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	.....	595.69	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	.....	2,886.84	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	4,544	2,489.36	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	.....	.....	8,100	.....	7,070	3,795	00	.....	....	00	00
.....	.....	5,748	2,929.03	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	.....	793.30	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	1,501	2,037.20	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	1,166.5	2,162.79	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	.....	202	172	.....	1,000	450	81.30	.....	21.22	.....	100
.....	.....	400	598.60	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	.....	817.07	29,785	.....	.....	.....	99.97	.....	....	100	.....
.....	.....	.....	433.36	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	.....	1,184.60	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	.....	449.45	.....	.....	.....	.....	100	.....	....	90.85	.....

QUANTITIES— STATEMENT SHOWING CONDITION OF CON

DESIGNATION.	AMOUNT DONE DURING JULY, 1899.				TOTAL DONE TO		
	Main Channel.				*Main Channel.*		
	Glacial Drift. Cu. Yds	Solid Rock. Cu. Yds	Piles Lin. Ft.	Masonry and Concr't. Cu. Yds.	Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds.	Retaining Wall. Cu. Yds.
Wire Mills Road Bridge over Main Channel, Sec. 16	.....	.....	.....	.....	.....	603	.....
E., J. & E. R. R. Co.'s Bridge, north of Joliet	.....	.....	.....	.....	.....	.....	.....
Cass Street Bridge over Main Channel, Sec. 18	.....	.....	.....	.....	.....	.....	.....
Jefferson Street Bridge, over Main Channel, Sec. 18	.....	.....	.....	.....	.....	.....	.....
C., R. I. & P. R. R. Co.'s Bridge over Desplaines River, Sec. 18	.....	1,000	.....	.....	.....	1,300	.....
Totals	148,615	48,843	8,300	1555.9	27,502,658.6	12,643,079.1	373,749.34

*6,300—Retaining Wall.

STRUCTION CONTRACTS AUGUST 1, 1899—*Continued.*

DATE.				ESTIMATED REMAINING TO BE DONE.				PERCENTAGE COMPLETED.				
River Diversion.		Piles. Lineal Feet.	Masonry and Concr't. Cu. Yds.	*Main Channel.*				Main Channel Excava'n	River Divers'n.	Ret. Wall	Masonry and Concr't	Piles.
Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds.			Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds	Piles & R. W.	Mas'y& Concr't Cu. Yds					
.....	.....	.....	566.57	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	.....	1,041.84	.....	.....	.....	.....	.....	.....	....	100	.....
.....	.....	.....	.....	2,850	52	.....	696	00	.....	....	00	.....
.....	.....	.....	.....	3,000	104	.....	1,242	00	.....	....	00	.....
.....	.....	.....	.....	.....	1,900	.....	1,326	14.62	.....	....	00	.....
1,801,339	258,659	92,320.5	45,677.11	873,028	249,378	107,868 *6.300	36,096	97.28	100	98.3	55.85	46.00

COMMUNICATION FROM HIGHWAY COMMISSIONERS OF LEMONT.

The Clerk presented and read a communication from the Board of Highway Commissioners of the Town of Lemont in reference to matters connected with the Stephen Street Highway and Bridge across the Main Channel, which, by unanimous consent, was referred to the Committee on Engineering.

ORDER IN REFERENCE TO PROPOSALS FOR DEVELOPMENT AND LEASE OF WATER POWER.

Mr. Wenter presented, and the Clerk read, an order that the Committee on Engineering be instructed, in considering water power bids this day presented, to recommend no proposal which shall not be modified so as to contain three clauses for the protection of the Sanitary District:

First.—A clause providing that no hydraulic work shall be constructed which shall interfere with the utilization of the canal as a navigable waterway between the lakes and the Mississippi.

Second.—A clause providing that the Sanitary District or Federal Government may make any change in location or character of the hydraulic work found necessary for navigation purposes, on payment of cost of such alteration or removal and a reasonable compensation for loss of power during such time, and that no vested rights shall accrue as against the plans of the Federal Government or the Sanitary District as to a navigable channel, an express waiver of any future claims of rights to be made; and,

Third.—A clause providing that at the expiration of ten years, or any period of ten years, in the life of the water power lease, the Sanitary District or the City of Chicago, under authority of the Sanitary District, on one year's notice, may terminate said lease to the extent of demanding and appropriating so much of said water power as may be necessary for municipal lighting of said City of Chicago on the payment of reasonable and appraised compensation for money invested and improvements made.

Mr. Wenter, seconded by Mr. Smyth, moved that the order be adopted.

Mr. Carter, seconded by Mr. Kelly, moved as an amendment that the order be referred to the Committee on Engineering.

On roll-call on the motion of Mr. Carter to refer the order to the Committee on Engineering the vote stood: Yeas—Messrs, Carter and Kelly—two. Nays—Messrs. Boldenweck, Braden, Jones, Smyth and Wenter—five. Excused and not voting—Mr. Eckhart—one.

Upon this result the President declared the motion to refer lost.

On the suggestion of Mr. Jones, the Board then decided to vote on the adoption of each clause of the order separately, by unanimous consent.

On roll-call on the motion for the adoption of the first clause of the order the vote stood: Yeas—Messrs, Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Smyth and Wenter — eight. Nays—none.

Upon this result the President declared the motion carried.

On roll-call on the motion for the adoption of the second clause the vote stood: Yeas— Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Smyth and Wenter—eight. Nays—none.

Upon this result the President declared the motion carried.

Mr. Jones, seconded by Mr. Smyth, then moved to lay the third clause on the table.

On roll-call on the motion to lay the third clause on the table the vote stood: Yeas—Messrs. Jones and Smyth—two. Nays—Messrs. Boldenweck, Braden, Carter, Eckhart and Wenter—five. Excused and not voting—Mr. Kelly—one.

Upon this result the President declared the motion to lay on the table lost.

The Board then proceeded to vote on the motion for the adoption of the third clause, and on roll-call the vote stood: Yeas—Messrs. Carter, Eckhart, Smyth and Wenter—four. Nays—Messrs. Boldenweck, Braden and Jones—three. Excused and not voting—Mr. Kelly—one.

Upon this result the President declared the motion carried and the entire order adopted.

Mr. Eckhart, seconded by Mr. Jones, then moved that all bids for the development and lease of water power received this day be rejected.

On roll-call the vote stood: Yeas—Messrs. Eckhart and Jones—two. Nays—Messrs. Boldenweck, Braden, Carter Kelly, Smyth and Wenter—six.

Upon this result the President declared the motion for the rejection of bids lost

The following is

THE ORDER.

"*Ordered*, By the Board of Trustees of the Sanitary District of Chicago, that the Committee on Engineering be instructed, in the consideration of the several water power bids this day presented, to recommend no proposal which shall not be so modified as to contain the following clauses for the protection of the Sanitary District and future interest of the Federal Government:

First—A clause providing that no hydraulic works shall be constructed which shall in any way interfere with the plans of the utilization of the Drainage Canal as a portion of the great navigable waterway connecting the lakes with the Mississippi River and the Gulf of Mexico.

Second—A clause providing that the Sanitary District, or the Federal Government in pursuance of Federal legislation may at will be free to make any alterations in location or character of the hydraulic works thus created, which may be found necessary for navigation purposes, on the payment of the actual expenses of such alterations or removal, and a reasonable compensation for loss of power during such time; and that no vested rights shall accrue as against the plans of the Federal Government or the Sanitary District as to a navigable channel, and that there shall be an express waiver of any future claim of vested rights in this regard.

Third—A clause providing that at the expiration of ten (10) years, or at the expiration of any period of ten (10) years in the life of the water-power lease, the Sanitary District, or the City of Chicago under authority of the Sanitary District, on one (1) years notice, may terminate the life of said lease to the extent of demanding and appropriating so much of said water power as may be necessary for municipal lighting of said City of Chicago on the payment of reasonable and appraised compensation for money invested and the improvements made, the details to be provided for in said contract or lease."

PRESENTATION OF BIDS FOR DEVELOPMENT AND LEASE OF WATER POWER.

The President then announced that in conformity with the advertisement inviting "proposals for development and lease of water power," duly published, giving sixty days' notice, the Board would now proceed to open bids received in response to said advertisement

The Clerk then proceeded to open the bids received as shown hereafter.

At the conclusion of the reading of the bids Mr. Kelly, seconded by Mr. Carter, moved that the bids just received be referred to the Committee on Engineering.

The motion prevailed unanimously and it was so ordered.

The following is the

SCHEDULE OF BIDS FOR DEVELOPMENT AND LEASE OF WATER-POWER.

No. of Bid as Received.	Name and Address of Bidder.	Amount Deposited with Bid.
1	Economy Light & Power Co., Joliet, Ill.	$50,000 00
2	Clarence Buckingham, Chicago, Ill.	50,000 00

ADJOURNMENT.

On motion of Mr. Carter, seconded by Mr. Wenter, the Board then adjourned.

Joseph F. Haas

Clerk.

PROCEEDINGS

—OF THE—

BOARD OF TRUSTEES

—OF THE—

SANITARY DISTRICT OF CHICAGO.

AUGUST 30, 1899.

OFFICIAL RECORD.

Published by authority of the Board o Trustees of the Sanitary District of Chicago.

REGULAR MEETING.

The four hundred and fifty-third regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Wednesday, August 30, 1899, at 2 o'clock P. M.

On roll-call Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—nine members, were present.

President Boldenweck then called the Board to order.

MINUTES.

The minutes of the regular meeting, held August 23, 1899, were approved as printed, on motion of Mr. Kelly, seconded by Mr. Jones.

VOUCHERS.

The Clerk presented the following vouchers:

*PAY ROLLS.

Engineering Department (Chief Engineer's roll, August, 1899).....	$ 1,250 00	
Engineering Department (Division of Construction roll, August, 1899).	7,235 25	
Engineering Department (Division of Drafting and Designing roll, August, 1899).....	2,500 06	
Engineering Department (Division of Records roll, August, 1899).....	697 50	
		$11,682 81

Clerical Department (Clerk's roll, August, 1899)		$ 1,043 33
Law Department (Attorney's roll, August, 1899)	$ 1,468 34	
Law Department (Joliet roll, August, 1899)	458 34	
		$ 1,926 68
Treasury Department (Treasurer's roll, August, 1899)		166 67
General Account (General roll, August, 1899)	$ 225 00	
General Account (Special roll, first half August, 1899)	137 50	
General Account (Special roll, second half August, 1899)	194 91	
General Account (Streams Examination roll, August, 1899)	135 00	
General Account (Trustees' roll, August, 1899)	2,333 33	
		$ 3,025 74
Police Department (Marshal's roll, August, 1899)		2,393 36
Maintenance Account (Pumping Plant roll, August, 1899)		843 75
Total		$21,082 34

CLERICAL DEPARTMENT.

P. F. Pettibone & Co. (stationery)	$ 6 16	
Bentley, Murray & Co. (printing)	8 50	
		$ 14 66

* LAW DEPARTMENT.

John S. Runnells (services, General Counsel, August, 1899)		$ 416 67

GENERAL ACCOUNT.

The Inter Ocean (advertising call for warrants)	$ 2 40	
The Chicago Chronicle Company (advertising call for warrants)	4 00	
The Chicago Times-Herald (advertising call for warrants)	4 00	
The Tribune Company (advertising call for warrants)	5 70	
John M. Smyth Company (oil cloth)	4 40	
Grommes & Ullrich (sundries)	5 50	
Youghiogheny and Lehigh Coal Company (coal)	32 13	
Hills McCanna Company (pumps)	25 00	
F. R. McGregor (expense)	11 05	
Thos. S. Bell (expense)	6 95	
Chas. Werner's Livery Stable (livery)	36 00	
*John C. Schubert & Co. (floral design)	75 00	
*Joseph F. Haas, Clerk (expense)	305 50	
		$ 517 63

*CONSTRUCTION ACCOUNT.

Wisconsin Bridge and Iron Company (Section E—C. T. T. R. R. Bridge)	$ 1,097 70	
Heldmaier & Neu (Section 12—Romeo Highway Bridge)	46 58	
Chicago Crushed Stone Company (Summit-Lyons Road Bridge)	50 20	
Crerar, Adams & Co. (Pan Handle Bridge)	52 50	
Peter Petersen (Section O—Eight-track Bridge)	167 75	
James Smith (Section M, bricking in pump boilers)	275 00	
Heggie Bros. (Section M, fittings for pumps)	448 20	
The A., T. & S. F. Ry. Co. (Section N, railroad deviation)	388 58	
The A., T. & S. F. Ry. Co. (Section G, railroad deviation)	953 38	
Chicago Junction Railway Company (Section O—Pan Handle Bridge)	125 16	
C. T. T. R. R. Co. (Section E, temporary bridge)	96 36	
C. T. T. R. R. Co. (Taylor Street Bridge)	158 53	
C. T. T. R. R. Co. (Section O—Pan Handle Bridge)	313 00	
The Belt Railway Company of Chicago (Section K, temporary bridge)	2,456 33	
		$ 6,629 27
Grand total		$ 28,660 57

*To be paid by warrants with interest coupons attached, drawn against the Tax Levy for 1899.

Mr. Carter, seconded by Mr. Wenter, moved that the vouchers as read and shown above be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—nine. Nays—none.

Upon this result the President declared the motion carried.

WEEKLY REPORT ON EMPLOYES.

The Clerk presented a report, in accordance with the Rules, showing the number of persons in the employ of the District for the week ending August 26, 1899, which was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, August 30, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the week ending August 26, 1899, as the same have been reported to me:

Engineering department	98
Maintenance	9
Clerical department	5
Law department	8
Treasury department	1
Police department	28
General	6
Total employes	155

Respectfully submitted,

(Signed) JOSEPH F. HAAS,

Clerk."

REPORT IN REFERENCE TO AGREEMENT WITH CITY OF CHICAGO FOR CONSTRUCTION OF BRIDGE AT CANAL STREET.

Mr. Smyth, Chairman, presented, and the Clerk read, a report from the Committee on Engineering, transmitting form of agreement in duplicate between the City of Chicago and the Sanitary District of Chicago for the construction of a bridge over the Chicago River at Canal Street, the report recommending that the President and Clerk of the District be authorized and directed to execute said agreement, and that when said agreement is properly executed by the City of Chicago, a copy thereof be placed on file with the Clerk of the District.

Mr. Smyth, seconded by Mr. Mallette, moved that the report be adopted and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—nine. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, August 28, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—The Committee on Engineering reports that it has had under consideration, form of agreement between the City of Chicago and the Sanitary District of Chicago, providing for the construction of a bridge over the Chicago River at Canal Street. The terms of said agreement are substantially as follows:

The Sanitary District agrees to construct a new bridge of the Bascule type at an estimated cost of seventy thousand dollars ($70,000.00) across the South Branch of the Chicago River, at Canal Street.

The City of Chicago agrees to pay thirty-five thousand dollars ($35,000.00), to be applied by the District upon the cost of said bridge.

The District also agrees to convey certain property, described in said agreement, to the city as part consideration of the contract.

But the District reserves the right of easement over and upon the property conveyed for any work of construction which it may undertake, or for any of its corporate purposes not incompatible with the operation of the bridge when completed.

The District also agrees that, in case the cost of constructing said bridge, including the cost of the lands conveyed by said agreement, falls within the sum of seventy thousand dollars ($70,000.00), to refund one-half (½) of the difference between the actual cost price thereof and the sum aforesaid to the City of Chicago.

This agreement further provides that the bridge shall be either of the Scherzer

Rolling Lift Bridge design or the design invented by M. G. Schinke, of Milwaukee, Wisconsin, or any other Bascule style of bridge satisfactory to the Engineer of the City and the Chief Engineer of the District.

The Committee recommends that the President and Clerk of the District be authorized and directed to execute said agreement on behalf of the District; and that, when the said agreement is properly executed by the City of Chicago, a copy thereof be placed on file with the Clerk of the District.

Respectfully submitted,

(Signed) THOMAS A. SMYTH,
Chairman.
J. P. MALLETTE,
JOS. C. BRADEN,
B. A. ECKHART,
FRANK WENTER,
THOMAS KELLY,
ALEX. J. JONES,
WM. BOLDENWECK,
Committee on Engineering

(Accompanied by form of agreement, specifications and plans in duplicate.)

CLOSING OF OFFICES ON LABOR DAY.

Mr. Braden presented and, seconded by Mr. Eckhart, moved the adoption of the following

ORDER:

"*Ordered*, That the offices of the Sanitary District of Chicago be, and they are, hereby ordered closed on Monday, September 4, 1899, the same being Labor Day, a legal holiday."

The motion prevailed unanimously and the President declared the order adopted.

ADJOURNMENT.

On motion of Mr. Eckhart, seconded by Mr. Smyth, the Board then adjourned.

Joseph F. Haas
Clerk.

PROCEEDINGS

—OF THE—

BOARD OF TRUSTEES

—OF THE—

SANITARY DISTRICT OF CHICAGO.

SEPTEMBER 6, 1899.

OFFICIAL RECORD

Published by authority of the Board of Trustees of the Sanitary District of Chicago.

REGULAR MEETING.

The four hundred and fifty-fourth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Wednesday, September 6, 1899, at 2 o'clock P. M.

On roll call Messrs. Boldenweck, Braden, Carter, Eckhart, Kelly, Mallette, Smith and Wenter — eight members, were present, Mr. Jones arriving subsequently.

President Boldenweck then called the Board to order.

MINUTES.

The minutes of the regular meeting held August 30, 1899, were approved as printed on motion of Mr. Kelly, seconded by Mr. Mallette.

*VOUCHERS.

The Clerk presented the following vouchers:

CONSTRUCTION ACCOUNT.

Hayes Bros. (Section 16, September 1, 1899)	$ 7,661 06
Heldmaier & Neu (Section 17, September 1, 1899)	36,292 15
Heldmaier & Neu (Section 12, Romeo Bridge)	525 00
Heldmaier & Neu (Section E—C.T. T. R.R. Bridge)	1,474 28
Gahan & Byrne (Section 18, September 1, 1899)	20,248 72

Sackley & Peterson (Section 8, Lemont Highway Bridge)	$ 525 00	
Halverson, Richards & Co. (Section E, September 1, 1899)	1,470 07	
Gahan & Byrne (Section G, September 1, 1899)	2,489 20	
Gahan & Byrne (Section H, September 1, 1899)	492 71	
Christie & Lowe (Section K, September 1, 1899)	2,105 60	
Hayes Bros. et al. (Section N, September 1, 1899)	3,312 58	
Hayes Bros. et al. (Section O, September 1, 1899)	1,274 40	
McArthur Bros. Company (Section O, eight-track bridge)	8,323 35	
McArthur Bros. Company (Section O, eight-track bridge)	14,880 00	
McArthur Bros. Company (Section O—S. W. Boulevard Bridge)	46 62	
Lydon & Drews Company (Chicago River dredging)	4,555 25	
Lydon & Drews Company (By-pass, Chicago River)	29,436 31	
Griffiths & McDermott (By-pass, Chicago River)	1,207 50	
Francis Beidler & Co. (Section O, Pan Handle Bridge)	516 62	
Peter Petersen (Section O, eight-track bridge)	214 88	
Geo. M. Huss (Section O, pumping plant)	12 70	
		$137,064 00

GENERAL ACCOUNT.

John F. Higgins (printing Proceedings, etc., August, 1899)	$ 385 59
Total	$137,449 59

* To be paid by warrants, with interest coupons attached, drawn against the Tax Levy for 1899.

Mr. Carter, seconded by Mr. Wenter, moved that the vouchers, as read and shown above, be approved and ordered paid.

On roll call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—nine. Nays—none.

Upon this result the President declared the motion carried.

REQUISITIONS.

The Clerk presented the following requisitions:

No. 830, Law Department (stationery) $ 35 25
No. 963, Police Department (two car-loads coal) 250 00

Mr. Mallette, seconded by Mr. Braden, moved that Requisition No. 830, as read and shown above, be allowed.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—nine. Nays—none.

Upon this result the President declared the motion carried.

Mr. Mallette, seconded by Mr. Smyth, then moved that Requisition No. 963, as read and shown above, be allowed.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette Smyth and Wenter—nine. Nays—none.

Upon this result the President declared the motion carried.

PURCHASE OF MIMEOGRAPH.

Mr. Jones, seconded by Mr. Eckhart, moved that the Clerical Department be authorized to purchase a mimeograph.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—nine. Nays—none.

Upon this result the President declared the motion carried.

WEEKLY REPORT ON EMPLOYES.

The Clerk presented a report, in accordance with the Rules, showing the number of persons in the employ of the District for the week ending September 2, 1899, which was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, September 6, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the week ending Sep-

tember 2, 1899, as the same have been reported to me:

Engineering department	100
Maintenance account	9
Clerical department	5
Law department	8
Treasury department	1
Police department	28
General	6
Total employes	157

Respectfully submitted,

(Signed) JOSEPH F. HAAS,
Clerk."

REPORT IN REFERENCE TO EXECUTION OF AGREEMENT WITH CHICAGO JUNCTION RAILWAY COMPANY FOR TRANSFER OF CERTAIN TRACKS.

The Clerk presented and read a report transmitting the agreement with the Chicago Junction Railway Company for the transfer of certain tracks, the report setting forth that said agreement has been duly executed by the said railway company and also by the President and Clerk, as authorized by the Board at the meeting held August 2, 1899, (page 5972 of the Proceedings), and a duplicate copy of same delivered to said company, and, therefore, recommending that said agreement be printed and placed on file.

By unanimous consent the report was ordered received, and with accompanying agreement printed and placed on file.

The following is

THE REPORT.

"CHICAGO, Sept. 6, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I herewith transmit the agreement dated August 2, 1899, between the Chicago Junction Railway Company and the Sanitary District of Chicago in reference to the transfer of the tracks of the Chicago Terminal Transfer Railroad Company to the right of way of the Chicago Junction Railway Company, the same having been duly executed by the railway company and also by your President and Clerk, as authorized by the Board of Trustees at the meeting held August 2, 1899 (page 5972 of the Proceedings), and a duplicate copy of same, duly executed, delivered to said company; and I therefore recommend that said agreement be printed and placed on file.

Respectfully submitted,

Signed) JOSEPH F. HAAS,
Clerk."

The following is

THE AGREEMENT:

This Agreement, Made and entered into this 2nd day of August, A. D. 1899, by and between the Chicago Junction Railway Company, party of the first part, and the Sanitary District of Chicago, party of the second part, witnesseth: That

WHEREAS, The railway tracks of the Chicago Terminal Transfer Railroad Company are located near the intersection of Ash Street and Thirty-second Street, Chicago, Illinois, as shown by the yellow lines on the plan hereto attached, marked "Exhibit A"; and

WHEREAS, The party of the second part desires to have the said tracks of the Chicago Terminal Transfer Railroad Company moved easterly upon the right of way of the party of the first part, as shown by the westerly red line on said plan, for the purpose of allowing the party of the second part to construct a bridge across the Drainage Canal near said place;

Now, therefore, In consideration of the premises and the sum of one dollar ($1.00) in hand paid by each of the parties hereto to the other party, the said parties hereto mutually covenant and agree as follows, to-wit: Said party of the first part covenants and agrees with said party of the second part to enter into a contract with said Chicago Terminal Transfer Railroad Company to permit said Chicago Terminal Transfer Railroad Co. to move its tracks, as aforesaid, upon certain terms and conditions to be set forth in the said contract; and said party of the second part covenants and agrees that it will pay to said first party as rental for the use of the said right of way of said first party by said Chicago Terminal Transfer Railroad Company, the sum of sixty dollars ($60.00) per month for a period commencing the 24th day of July, A. D. 1899, and ending when the said Chicago Terminal Transfer Railroad Company shall have removed its railroad tracks from the right of way of said first party.

This agreement shall be binding upon

the successors and assigns of each of the parties hereto.

In Witness Whereof, The parties hereto have caused these presents to be executed by their duly authorized officers the day and year first above written.

(Signed)

Chicago Junction Railway Co.,
By J. A. SPOOR,
President.

Attest:
CHAS. D. MOYER, (Seal)
Secretary.

Sanitary District of Chicago,
By WM. BOLDENWECK,
President.

Attest:
JOSEPH F. HAAS, (Seal)
Clerk.

APPROVAL OF REDUCED BONDS ON CONTRACT FOR SUPERSTRUCTURES OF A., T. & S. F. BRIDGES ACROSS MAIN CHANNEL ON SECTION 8 AND AT TWENTY-SIXTH STREET AT WEST END OF SECTION N.

Mr. Carter, Chairman, presented, and the Clerk read, a report from the Committee on Finance in regard to the acceptance of two bonds in the sum of $2,000 each, furnished by the Carnegie Steel Company, Limited, on the contract for the superstructure of the A., T. & S. F. Bridge across Main Channel on Section 8 and also on the contract for the superstructure of the A., T. & S. F. Bridge at Twenty-sixth Street at west end of Section N, in lieu of the original bonds on said contracts given by said contractors and in accordance with the action of the Board at the meeting held July 26, 1899 (page 5948 of the Proceedings), the report recommending that said bonds of $2,000 each, as herewith submitted, be approved by the Board of Trustees.

Mr. Carter, seconded by Mr. Kelly, moved that the report be adopted and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Kelly, Mallette, Smyth and Wenter—eight. Nays—none. Excused and not voting—Mr. Jones—one.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

CHICAGO, September 6, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—The Committee on Finance desires herewith to report that two bonds in the penal sum of two thousand dollars each have been executed by the Carnegie Steel Company, limited, of Pittsburgh, Pa., with The City Trust, Safe Deposit and Surety Company of Philadelphia as surety thereon.

The Board of Trustees at the meeting held July 26, 1899, (page 5948 of the Proceedings), authorized that the bonds originally filed by said company with its contracts for the work upon the superstructures of the A., T. & S. F. Ry. Co.'s Bridges crossing the Main Channel at the west end of Section "N" and Section "8," respectively, be reduced and that the bonds in the sum above mentioned be accepted in lieu thereof. The Committee finds that said bonds are in proper form and that the surety thereon is sufficient.

Your Committee, therefore, recommends that said bonds, as herewith submitted, be approved by the Board of Trustees.

Respectfully submitted,

(Signed) Z. R. CARTER,
Chairman.
B. A. ECKHART,
FRANK WENTER,
THOMAS KELLY,
Committee on Finance."

(Accompanied by two bonds in duplicate).

COMMUNICATION IN REFERENCE TO BID FOR DEVELOPMENT AND LEASE OF WATER POWER AND RETURN OF CHECKS.

The Clerk presented a communication from the Economy Light and Power Company in reference to the check deposited August 23, 1899, with their bid for development and lease of water power, and asking that said check be returned to them by Thursday if possible.

Mr. Braden, seconded by Mr. Wenter moved that the communication be referred to the Committee on Engineering with power to act, as to the return of al

checks deposited August 23d with bids for development and lease of water power.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—nine. Nays—none.

Upon this result the President declared the motion carried.

COMMUNICATION FROM SPECIAL COMMISSIONERS CHICAGO DRAINAGE CHANNEL AND ORDER IN REFERENCE THERETO.

Mr. Carter presented a communication from the Special Commissioners Chicago Drainage Channel with reference to, and accompanied by, a schedule of the payments now due employes and for other disbursements for the month of August, 1899, amounting to $2,355.55, the communication asking that the Board send a check for payment of same at once.

In the same connection Mr. Carter presented, and the Clerk read, an order that the Clerk be directed to draw a warrant on the Treasurer of the District in the sum of $2,355.55 in favor of the Clerk, said amount to be treated as a special emergency fund, to be used in the payment of pay roll and bills incurred for the month of August, 1899, by the Commissioners appointed by the Governor of the State of Illinois under Section 27 of the Sanitary District Act, and that the Clerk shall pay said Commissioners the amount shown to be due according to the schedule aforesaid, duly certified by said Commissioners, the order being accompanied by a duplicate copy of said pay roll or schedule and also certificate in reference to the same.

Mr. Carter, seconded by Mr. Jones, moved that the communication be printed and placed on file and the order in reference thereto adopted.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—nine. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE COMMUNICATION:

"CHICAGO, Ill., Sept. 1, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Herewith find statement of account of expenses and salaries incurred by the Special Commissioners for the month of August, 1899, amounting to $2,355.55, for which please send us check for same at once, and greatly oblige,

Yours very respectfully,

(Signed) AL. F. SCHOCH,

Secretary."

The following is

THE SCHEDULE:

"Items of expense, pay-rolls of Engineering Department and salaries of the Special Commission for the month of August, 1899:

Engineering Department.

J. P. Frizell, Asst. Engineer, August salary	$250 00
H. A. Potwin, Asst. Engineer, balance July salary	16 61
H. A. Potwin, Asst. Engineer, August salary	166 66
W. B. Ewing, Asst. Engineer, August salary	200 00
I. Watson, Draughtsman, August salary	100 00
J. Cammer, Draughtsman, August salary	100 00
A. L. Keuhn, Rodman, salary to August 19th	44 03
J. D. Hall, Rodman, salary to August 19th	40 80
E. L. Mayall, Rodman, salary to August 19th	40 80
T. F. Foley, Rodman, salary to August 19th	40 80
Sam Trenary, Rodman, salary to August 19th	40 80
J. L. Hall, Rodman, car fare, July	5 30
E. Zarbell, Transit man, car fare, July	13 65
A. L. Kuehn, Rodman, car fare, July	5 13
T. F. Foley, Rodman, car fare, July	6 80
Sam Trenary, Rodman, car fare, July	5 03
E. L. Mayall, Rodman, car fare, July	5 91
W. B. Ewing, Asst. Engineer, car fare, July	19 71
A. L. Kuehn, Rodman, car fare, August	1 88
Sam Trenary, Rodman, car fare, August	2 15
E. L. Mayall, Rodman, car fare, August	2 20
T. F. Foley, Rodman, car fare, August	4 90
J. D. Hall, Rodman, car fare, August	2 20
A. L. McDonald, Asst. Engineer, salary to August 24, 1899	10 03

F. E. Crandall, Asst. Engineer, salary to August 24, 1899	$ 20 36
E. Zarbell, Transit man, August salary	100 00
Linda Weber, labor in library	2 00
Central Union Telephone Co., telephone messages	3 15
Western Union Telegraph Co., telegrams	1 45
J. P. Frizell, trip to St. Paul	32 20
H. A. Potwin, Asst. Engineer, car fare for August	3 05
Kueffel & Esser Co., supplies	60
Geo. B. Carpenter & Co., supplies	6 88
Chicago Telephone Co., messages	10 85
Murray & Co., awnings for office	9 00
J. W. Alvord, Special Engineer, canal report	156 75
Postal Telegraph Co., telegrams	51
E. Dietzgen & Co., supplies	13 05
Rand, McNally & Co., maps	2 75
E. F. Leonard, services	50 00
Office Supplies.	
Miss Selby, Stenographer and Clerk, August salary	100 00
Typewriter rent to September 22, 1899	7 00
Security Deposit Co., office rent to September 10, 1899	75 00
Chicago Towel Co., August rent	1 50
Security Deposit Co., light rent to September 10	3 00
P. Heer, supplies	3 50
Sam Hanks, ice, August account	2 50
Commissioners' Salaries.	
Al F. Schoch, per diem and expenses, August	308 00
Isaac Taylor, per diem and expenses, August	317 06
Total	$2,355 55

The above account has been duly authorized and approved by the Board.

(Signed) ISAAC TAYLOR,
President.

(Signed) AL. F. SCHOCH,
Secretary."

The following is

THE ORDER:

"*Ordered*, That the Clerk be and he is hereby directed to draw a warrant on the Treasurer of the District in the sum of two thousand three hundred and fifty-five dollars and fifty-five cents ($2,355.55) in favor of himself, said amount to be treated as a special emergency fund to be used in payment of pay-roll and bills incurred for the month of August, A. D. 1899, by the Commissioners appointed by the Governor of the State of Illinois, under and by virtue of Section 27 of an act entitled 'An act to create Sanitary Districts and to remove obstructions in the Desplaines and Illinois Rivers, and the dams at Henry and Copperas Creek," approved May 29, 1889, in force July 1, 1889.

Ordered, further, That the Clerk shall pay to said Commissioners the amount shown to be due according to a schedule of pay-roll and bills incurred as aforesaid, duly certified by said Commissioners."

ADJOURNMENT.

On motion of Mr. Carter, seconded by Mr. Braden, the Board then adjourned.

Joseph F. Haas
Clerk.

PROCEEDINGS

—OF THE—

BOARD OF TRUSTEES

—OF THE—

SANITARY DISTRICT OF CHICAGO.

SEPTEMBER 13, 1899.

OFFICIAL RECORD.

Published by authority of the Board o Trustees of the Sanitary District of Chicago.

REGULAR MEETING.

The four hundred and fifty-fifth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Wednesday, September 13, 1899, at 2 o'clock P. M.

On roll-call Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Mallette, Smyth and Wenter—eight members, were present.

President Boldenweck then called the Board to order.

MINUTES.

On motion of Mr. Carter, seconded by Mr. Mallette, consideration of the minutes of the regular meeting held September 6, 1899, was postponed.

VOUCHERS.

The Clerk presented the following vouchers:

ENGINEERING DEPARTMENT.

Alfred L. Robbins Company (glass tubing)	$ 2 80
Marshall Field & Co. (signal flags)	4 53
Western Bank Note and Engraving Company (envelopes)	5 50
The Gunthorp-Warren Printing Company (printing)	38 50
Goes Lithographing Company (letter heads)	27 00
P. F. Pettibone & Co. (stationery)	36 04

Thayer & Jackson Stationery Company (stationery)	$ 38 07	
Dennison Manufacturing Company (shipping tags)	19 00	
Western Camera Manufacturing Company (photo supplies)	32 08	
Burke & James (photo supplies)	28 27	
Wygant & Ayres (rent, Corwith, June, July and August, 1899	37 50	
J. H. Alexander (rent, Lockport, August, 1899)	17 00	
Hans Isak (gauge reading)	10 00	
The Waukesha Water Company (water)	16 88	
Henry Fittge (hardware)	7 71	
R. Seelig (gauge boards, etc.)	42 80	
The Frederick Post Company (drafting supplies)	39 58	
Eugene Dietzgen Company (drafting supplies)	25 40	
Pearson Bros. (blue prints)	11 31	
J. S. Hull (expense)	9 58	
*Keuffel & Esser Company (drafting supplies)	55 56	
*Ignatz Novak & Co. (coal)	60 00	
*Robert W. Hunt & Co. (bridge material inspection)	104 12	
*Soper Lumber Company (pine stakes)	150 00	
*The Canal Commissioners (inspecting Dam No. 1, August, 1899)	472 75	
*H. B. Alexander (expense)	53 39	
*W. T. Keating (expense)	67 80	
*G. M. Wisner (expense)	70 98	
		$ 1,484 15

GENERAL ACCOUNT.

Adams Express Company (expressage)	$ 29 95	
Dunham Towing and Wrecking Company (coal)	27 00	
Douglas Park Livery (livery)	6 00	
George E. Haseltine (livery)	12 00	
Wagner Bros. (livery)	42 25	
Philip Provencal (carpenter work)	6 85	
Robert E. Hills (fittings)	7 07	
F. R. McGregor (expense)	8 80	
*J. R. McKay (roofing)	55 00	
*Thos. F. Parry (engrossing)	85 00	
*Security Deposit Company (rent, September, 1899)	498 33	
*Arthur R. Reynolds (collecting samples of water)	198 50	
*Edwin E. Howell (account models)	1,500 00	
		$ 2,476 75

POLICE DEPARTMENT.

Mrs. A. Hartwig (laundry)	$ 5 00	
Standard Oil Company (oil)	9 21	
		$ 14 21

MAINTENANCE ACCOUNT.

W. H. Salisbury & Co. (rubber boots)	$ 8 44	
Wm. O'Connell (sundries)	9 88	
H. A. Kettering (sundries)	21 60	
Heggie Bros. (boiler repairs)	28 70	
Barrett Hardware Company (hardware)	35 37	
H. B. Alexander (expense)	13 99	
*Illinois Oil Station (oil)	65 00	
*Dearborn Drug and Chemical Works (boiler compound)	79 12	
*Weaver Coal Company (coal)	223 85	
*Weaver Coal Company (coal)	401 74	
		$ 887 00

*CONSTRUCTION ACCOUNT.

Lydon & Drews Company (By-pass Chicago River)	$ 1,018 76	
Lydon & Drews Company (By-pass Chicago River)	2,349 78	
Griffiths & McDermott (By-pass Chicago River)	634 24	
Chicago Bridge and Iron Company (Taylor Street Bridge)	3,183 43	
Hayes Bros. (Section O, pumping plant)	150 11	
Hayes Bros. et al. (Section N—Kedzie Avenue roadway)	2,427 07	
Halvorson, Richards & Co. (Summit Road)	220 82	
Mason, Hoge, King & Co. (Section 6, repairing walls)	1,269 35	
The J. G. Wagner Company (Jefferson Street temporary bridge)	5,250 00	
The Commissioners of Highways, Township of Lockport, Will County, Ill. (Lockport Road)	780 00	
Dolese & Shepard Company (By-pass)	96 00	
Geo. M. Huss (Section O—Pan Handle Bridge)	78 00	
Peter Peterson (Section O—cement warehouse)	260 50	
Griffiths & McDermott (By-pass superstructure)	36,215 20	
McArthur Bros. Company (Section O—Eight-track bridge)	8,301 82	
Gahan & Byrne (Section 18)	8,840 00	
		$71,075 08
Grand total		$ 75,937 88

*To be paid by warrants with interest coupons attached, drawn against the Tax Levy for 1899.

Mr. Carter, seconded by Mr. Wenter, moved that the vouchers as read and shown above be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart (*except as to vouchers in favor of Dunham Towing and Wrecking Company for $27.00. Philip Provencal for $6 85, Robert E. Hills for $7.07 and F. R. McGregor for $8 80, on all of which he voted nay*). Jones, Mallette (*except as to voucher in favor of Edwin E Howell for $1,500.00 on which he voted nay*), Smyth and Wenter — eight (*except as above stated*). Nays—none (*except as above stated*).

Upon this result the President declared the motion carried.

REQUISITION.

The Clerk presented the following requisition:

No. 964, Police Department (sundry supplies) $16 00

Mr. Mallette, seconded by Mr. Braden, moved that Requisition No. 964, as read and shown above be allowed.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Mallette, Smyth and Wenter—eight. Nays—none.

Upon this result the President declared the motion carried.

WEEKLY REPORT ON EMPLOYES.

The Clerk presented a report, in accordance with the Rules, showing the number of persons in the employ of the District for the week ending September 9, 1899, which was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, Sept. 13, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the week ending September 9, 1899, as the same have been reported to me:

Engineering department	100
Maintenance	9
Clerical department	5
Law department	8
Treasury department	1
Police department	28
General	6
Total employes	157

Respectfully submitted,

(Signed) JOSEPH F. HAAS,
Clerk."

MONTHLY REPORT FROM CLERICAL DEPARTMENT.

The Clerk presented a report from the Clerical Department for the month of August, 1899, which was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, Sept. 1, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I herewith submit the report of the Clerical Department for the month of August, 1899.

The total expenditure of the District for the month was $557,947.33, of which amount the sum of $1,607.82 was paid in regular warrants, $314,401.05 in 1899 tax levy warrants, and the sum of $241,938.46 by the Treasurer of the District, for which no warrant was required. Of the amount paid by the Treasurer the sum of $235,748.69 was for 1898 tax warrants redeemed, and $6,189.77 for interest on warrants redeemed.

The total amount expended on account of, and charged to, the Clerical Department during the month of August was $2,125.57, of which amount the sum of $3,086.66 was for salaries and $38.91 for general office expenses.

There are no outstanding liabilities against the Clerical Department and the expenditure for the present month will be about $1,200.00.

The total amount expended for account of, and charged to, the General Account during the month of August was $10,925.22, divided as follows:

Rent for August, 1899	$ 498 33
Printing	255 79
Streams examination	1,243 17
Salaries	5,684 57
Advertising	614 00
General expenses	1,535 16
Telephone service	1,094 20
Total	$10,925 22

The expenditure for the present month for the General Account will be about $3,000.

Of the total amount of 1896 tax levy warrants issued there is now outstanding the sum of $11,372.05; of the 1897 tax levy warrants issued there is now outstanding the sum of $15,000; of the 1898 tax levy warrants issued there is now outstanding the sum of $373,092.18, and of the 1899 tax levy warrants there is now outstanding the sum of $1,465,939.96.

The following is a tabulated statement of total expenditures for the month of August, 1899.

Account.	Regular Warrants.	1899 Tax Levy Warrants.	Paid by Treasurer.	Total for Month.
Engineering Department	$ 497 17	$ 23,217 13	.....	$ 23,714 30
Construction	.....	215,141 22	.....	215,141 22
Clerical Department	38 91	2,086 66	.....	2,125 57
Law Department	86 25	6,067 29	.....	6,153 54
Treasury Department	.....	333 33	.....	333 33
General	951 10	9,974 12	.....	10,925 22
Police Department	4 00	4,836 68	.....	4,840 68
Maintenance	30 39	2,546 72	.....	2,577 11
Capitalization and Maintenance	.....	47,591 00	.....	47,591 00
Joseph F. Haas, Clerk	.....	2,606 90	.....	2,606 90
1898 Tax Warrants Redeemed	.....	.....	$235,748 69	235,748 69
Interest on Tax Warrants Redeemed	.....	.....	6,189 77	6,189 77
Total	$ 1,607 82	$314,401 05	$241,938 46	$557,947 33

Respectfully submitted,

(Signed) JOSEPH F. HAAS, *Clerk.*"

MONTHLY REPORT FROM TREASURY DEPARTMENT.

The Clerk presented a report from the Treasury Department for the month of August, 1899, which was read, and, by unanimous consent, was ordered printed and placed on file.

The following is THE REPORT:

Receipts.

Balance on hand at date of last report		$ 156,419 54
From County Treasurer, Sanitary District Tax Account	$ 300,000 00	
From J. F. Haas, Clerk, Construction Account	75 00	
From Chicago National Bank, Interest Account	214 44	
Total cash received for month		$ 300,289 44
		$ 456,708 98

Disbursements.

Clerical Department	$ 27 75	
Treasury Department	20 25	
Engineering Department	577 86	
Law Department	204 14	
Law Department—Land Account	45 99	
General Account	1,331 85	
Police Department	96 47	
Maintenance Account	102 85	
Tax Warrants paid, levy 1898	235,748 69	
Interest paid on Tax Warrants, levy 1898	6,189 77	
Total cash disbursed		$ 244,345 12
Balance this date, in banks as per schedule endorsed hereon		212,363 86
		$ 456,708 98

Schedule.

Chicago National Bank	$ 186,425 08
National Bank of Illinois	25,938 78
Total	$ 212,363 86

CHICAGO, September 6, 1899. (Signed) F. M. BLOUNT, *Treasurer.*
By S. P. BLOUNT, *Asst. Treasurer.*

MONTHLY REPORT FROM LAW DEPARTMENT.

The Clerk presented a report from the Law Department for the month of August, 1899, which was read and, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT.

"CHICAGO, September 13, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I have the honor to transmit the report of the Law Department for the month of August, 1899.

The following are the expenses and disbursements:

GENERAL EXPENSES.

Right of way (salaries)	$ 250 00	
Legal services	833 33	
Books and stationery	$ 4 75	
Expense account	1,462 10	
		$ 2,550 18

SALARIES.

Attorneys	$ 2,733 36	
Office force	870 00	
		$ 3,603 36
Total expense for August		$ 6,153 54

A great deal of the time of the department, during the past month, was taken up in the matter of the District's Will County assessments before the Board of Review of said County at Joliet. The representatives of the District have succeeded in securing a reduction of twenty per cent. on the assessment of the DuPage township lands owned by the Sanitary District, although we are unable at this time to state what decision was reached with reference to

the Lockport and Joliet township assessments, the Board not yet having formulated their decision.

John V. Farwell Co. vs. The Sanitary District of Chicago and the Lydon & Drews Co., General Number 200,956, in the Superior Court of Cook County. This is a suit in case for ten thousand dollars ($10,000).

In addition to the above, the preparation of certain ordinances, together with the routine work, have occupied the time of the department.

Respectfully submitted,

(Signed.) CHARLES C. GILBERT,

Attorney."

REPORT IN REFERENCE TO COMPLETION OF CONTRACTS FOR SUPERSTRUCTURES OF WIRE MILLS ROAD BRIDGE CROSSING RIVER DIVERSION CHANNEL ON SECTION 16 AND ROMEO HIGHWAY BRIDGE CROSSING MAIN CHANNEL.

Mr. Smyth, Chairman, presented, and the Clerk read, a report from the Committee on Engineering in reference to, and accompanied by final certificates of the Chief Engineer and Acting Chief Engineer as to the completion of the contracts with the Wisconsin Bridge and Iron Company for the superstructure for the Wire Mills Road Bridge crossing the River Diversion Channel on Section 16, and with C. L. Strobel for the superstructure for the Romeo Highway Bridge crossing the Main Channel; the report recommending that the President and Clerk of the District be directed to pay to said Wisconsin Bridge and Iron Company the sum of $3,649.25 and to said C. L. Strobel the sum of $649.27, in full payment for work done on said contracts respectively, upon the filing with the District of a receipt in full of all claims and demands arising under said contracts respectively; and also recommending that the adjustment of the Chief Engineer in reference to the contracts of the Wisconsin Bridge and Iron Company and the District be confirmed.

Mr. Smyth, seconded by Mr. Jones, moved that the report be adopted and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Mallette, Smyth and Wenter—eight. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, Sept. 11, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—The Committee on Engineering presents herewith final certificate of the Chief Engineer of the District in favor of the Wisconsin Bridge and Iron Company, for the completiion of its contract for the construction of the bridge crossing the new channel of the Desplaines River, on the line of the Wire Mills Road, in Lockport, Illinois, under the terms of its contract dated October 29, A. D. 1898.

The Committee also presents the final certificate of Acting Chief Engineer Thomas T. Johnston, in favor of C. L. Strobel, Esq., for the completion of the erection of the superstructure of the bridge crossing the Main Channel at Romeo, on Section 12, under the terms of his contract dated August 24, A. D. 1898.

The Chief Engineer of the District informs the Committee that he has agreed to remit the forfeiture which would have been due on account of delay in completing the contract for the bridge above mentioned, in consideration of said Wisconsin Bridge and Iron Company's agreement to waive its claim for extras on account of the contract for the construction of the Chicago Terminal bridge, erected by it across the Main Channel.

The Committee advises your Honorable Body that it has duly considered each of the final certificates aforesaid, and the subject matter of the completion of the contracts, respectively, and the adjustment made by the Chief Engineer with reference to the contract of the Wisconsin Bridge and Iron Company, and recommends as follows:

That the President and Clerk of the District be and they are hereby authorized and directed to pay, in the usual manner, to the Wisconsin Bridge and Iron Company the sum of three thousand six hundred and forty-nine dollars and twenty-five cents ($3,649.25) in full

payment for work done upon contract by it, as above mentioned; and to C. L. Strobel, Esq., the sum of six hundred and forty nine dollars and twenty-seven cents ($649.27) for work done by him on the contract as above mentioned in full payment therefor, whenever each of said contractors shall have filed with the District a receipt in full and release of all claims and demands of any kind whatsoever arising under said contracts respectively; and the Committee also recommends that the adjustment of the Chief Engineer in reference to the contract of the Wisconsin Bridge and Iron Company and the District be and the same is hereby confirmed.

Respectfully submitted,

(Signed) THOMAS A. SMYTH,
Chairman.

JOS. C. BRADEN,
J. P. MALLETTE,
B. A. ECKHART,
Z. R. CARTER,
FRANK WENTER,
WM. BOLDENWECK,
ALEX. J. JONES,
Committee on Engineering."

The following are

THE CERTIFICATES OF THE CHIEF ENGINEER:

"CHICAGO, Sept. 1, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I hereby certify that the Wisconsin Bridge and Iron Company has completed the erection of the bridge crossing the new Channel of the Desplaines River on the line of the Wire Mills Road, in accordance with the terms of its contract with the Sanitary District of Chicago, dated October 29th, 1898, to the satisfaction of the Chief Engineer, except as to the time of completion, on which it was delinquent. In view of the fact that this company holds another contract with this District for the erection of a double-track railroad bridge across the Desplaines River on the line of the Chicago Terminal Transfer Railroad, which it has been unable to erect by reason of the failure of this District to furnish the substructure, which delay has extended over a period of nine monts, creating a claim on the part of the bridge company against this District, as an adjustment of this claim of the bridge company for delay, a waiver has been filed with the Clerk of this District, and also the abandonment of the pending claim for extras on account of the Chicago Terminal Bridge erected by it across the Main Channel, I have agreed to remit the forfeiture which would have been due on this bridge, as was done on the Lockport Road Bridge, and I ask you to confirm my action.

This certificate is given subject to any unaccrued or unmatured obligations imposed by the contract.

The volume and value of the work done is as follows:

Contract price for superstructure complete	$ 8,945 00
Extra work placing timber sills on piers and abutment of old span to support the floor stringers	71 25
Total cost of superstructure	$ 9,016 25
Amount paid on previous voucher	5,367 00
Amount due and unpaid	$ 3,649 25

Respectfully submitted,

(Signed) ISHAM RANDOLPH,
Chief Engineer."

"CHICAGO, Sept. 1, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I hereby certify that C. L. Strobel has completed the erection of the superstructure of the bridge crossing the Main Channel at Romeo on Contract Section 12, in accordance with the terms of his contract with the Sanitary District of Chicago, dated August 24, 1898, to the full satisfaction of the Chief Engineer.

This certificate is given subject to any unaccrued or unmatured obligations imposed by the contract.

The statement of work done is as follows:

Contract price for superstructure complete	$14,990 00
Extra steel, 11,454 lbs. at 3½c	400 89
Extra cast iron, 1,906 lbs. at 3c	57 18
Extra lumber, 5,825 ft. B. M. at $28 per M	163 10

Additional drilling.....	20 00
Work removing temporary structure, 18 hours at 45c....	8 10
Total cost.....	$15,639 27
Amount paid on previous vouchers.	14,990 00
Amount due and unpaid	$ 649 27

Respectfully submitted,

(Signed.) THOS. T. JOHNSTON,
Acting Chief Engineer."

ADJOURNMENT.

On motion of Mr. Mallette, seconded by Mr. Carter, the Board then adjourned.

Joseph F. Haas
Clerk.

PROCEEDINGS

—OF THE—

BOARD OF TRUSTEES

—OF THE—

SANITARY DISTRICT OF CHICAGO.

SEPTEMBER 20, 1899.

OFFICIAL RECORD.

Published by authority of the Board o Trustees of the Sanitary District of Chicago.

REGULAR MEETING.

The four hundred and fifty-sixth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Wednesday, September 20, 1899, at 2 o'clock P. M.

On roll-call Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Mallette and Wenter—seven members, were present, Mr. Kelly arriving subsequently.

President Boldenweck then called the Board to order.

MINUTES.

The minutes of the regular meeting, held September 6, 1899, were approved as printed, on motion of Mr. Jones, seconded by Mr. Braden.

Consideration of the minutes of the regular meeting, held September 13, 1899, was laid over by unanimous consent.

*VOUCHERS.

The Clerk presented the following vouchers :

LAW DEPARTMENT.

The Waukeshaw Water Company (water)	$ 3 38
Edwards & Hancock (stationery)	5 05
West Publishing Company (law books)	7 00
T. H. Flood & Co. (law books)	7 00
Callaghan & Co. (law books)	10 75

Edward Thompson Company (law books)	$ 12 00	
Stromberg, Allen & Co. (stationery)	10 20	
Robt. Walsh (witness fee)	10 00	
George Sperry (witness fee)	10 00	
John S. White (witness fee)	10 00	
Thomas J. Kelly (witness fee)	10 00	
Henry H. Strassner (witness fee)	10 00	
*Frank Vander Bogart—Clerk (fee)	112 30	
		$ 217 68

GENERAL ACCOUNT.

Dr. E. D. Kilbourne (expense)	$ 2 80	
Bausch & Lomb Optical Co. (sterilizer)	5 25	
Arthur R. Reynolds (expense)	9 25	
E. H. Sargent & Co. (sundries)	14 70	
Chicago Car Seal Manufacturing Company (tags)	15 00	
American Express Company (expressage)	46 12	
Adams Express Company (expressage)	37 19	
Richards & Co. Limited (petri dishes	24 00	
*United States Express Company (express)	184 18	
*Edwin O. Jordan (streams examination)	370 75	
*Arthur W. Palmer (streams examination)	377 29	
		$ 1,086 53

POLICE DEPARTMENT.

H. J. Doran (expense)	$ 7 26	
*E. J. Coen (expense)	51 00	
		$ 58 26

*CONSTRUCTION ACCOUNT.

Heldmaier & Neu (Section E—C. T. T. R. R.)	$ 364 22	
Heldmaier & Neu (Section 17, Sept. 16, 1899	14,011 38	
Gahan & Byrne Section 18, Sept. 15, 1899)	13,216 88	
McArthur Bros. Co. (Sec. O—Eight track bridge)	6,000 00	
McArthur Bros. Co. (Sec. O—Eight track bridge)	8,587 81	
Hayes Bros. et al. (Sec. O, Sept. 16, 1899)	1,525 60	
Hayes Bros. et al. (Sec. N, Sept. 16, 1899)	3,932 42	
Gahan & Byrne (Sec. H, Sept. 16, 1899)	3,598 03	
Griffith & McDermott (By-pass, Chicago River)	288 88	
Griffith & McDermott By-pass, Chicago River)	2,415 00	
Lydon & Drews Company (By-pass, Chicago River)	5,398 75	
Sackley & Peterson (Lemont subway)	1,050 00	
Thomas Moulding Company (eight track bridge)	3,162 00	
City of Chicago (Van Buren Street bridge)	28 87	
C. T. T. R. R. Co. (Pan Handle Bridge)	777 92	
Weaver Coal Company (Pumping plant, Illinois and Michigan Canal)	182 88	
Advance Packing and Supply Company (fittings)	332 14	
Illinois Central Railroad Company, lessee (changing tracks)	3,281 66	
The Union Switch and Signal Company (Pan Handle crossing)	2,154 78	
The Belt Railway Company of Chicago (temporary bridge)	136 02	
The Atchison, Topeka & Santa Fe Railway Company (eight track bridge)	392 81	
Christie & Lowe (Sec. K, Sept. 15, 1899)	3,918 23	
		$ 74,756 2
Grand total		$ 76,118 7

* To be paid by warrants, with interest coupons attached, drawn against the Tax Levy for 1899.

Mr. Carter, seconded by Mr. Wenter, moved that the vouchers as read and shown above be approved and ordered paid.

On roll call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Mallette and Wenter—seven. Nays—none.

Upon this result the President declared the motion carried.

REQUISITION.

The Clerk presented the following requisition:

No. 1099. Clerical Department (stationery).....$ 12 50

Mr. Carter, seconded by Mr. Wenter, moved that Requisition No. 1099, as read and shown above, be allowed.

On roll call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Mallette and Wenter—six. Nays—none.

Upon this result the President declared the motion carried.

WEEKLY REPORT ON EMPLOYES.

The Clerk presented a report in accordance with the Rules, showing the number of persons in the employ of the District for the week ending September 16, 1899, which was read, and by unanimous consent was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, Sept. 20, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the week ending Sept. 16, 1899, as the same have been reported to me:

Engineering department	100
Maintenance	9
Clerical department	5
Law department	8
Treasury department	1
Police department	28
General	6
Total employes	157

Respectfully submitted,

(Signed) JOSEPH F. HAAS,
Clerk."

RESOLUTION IN REFERENCE TO DEEP WATERWAY CONVENTION.

Under the head of new business Mr. Wenter presented, and the Clerk read, the following

RESOLUTION:

"WHEREAS, It has come to the notice of every Trustee, and to the public in general through the Chicago newspapers, that a convention will be held in Peoria, Ill., on the 10th of October, 1899, to agitate the question of a continuous waterway from Chicago to the Mississippi River; and

WHEREAS, The agitation of said question is one that is so closely allied with our Canal soon to be opened; therefore, be it

Resolved, That this Board pass such resolutions to be in harmony with the work so far performed and executed by this Board; furthermore, be it

Resolved, That these resolutions be referred to the Joint Committee on Federal Relations and Engineering, to make such report defining our policy as to the deep waterway for which this call is being made, and also defining the position of this Board on any future action towards the consummation of a deep waterway from the point of the end of our Channel at Lockport to the mouth of the Mississippi River, and from there to the Gulf of Mexico."

By unanimous consent, the resolution was referred to the Joint Committee on Federal Relations and Engineering.

PRESENTATION OF BIDS FOR SUPERSTRUCTURE FOR TOW-PATH BRIDGE CROSSING RIVER DIVERSION CHANNEL ON SECTION 17.

The President then announced that, in conformity with the advertisement inviting proposals for "the superstructure for the tow-path bridge crossing River Diversion Channel on Section 17," duly published, giving sixty days' notice, as required by the Sanitary District Act, the Board would now proceed to open bids received in response to said advertisement.

The Clerk then proceeded to open the bids as shown hereafter.

At the conclusion of the reading of the bids, Mr. Mallette, seconded by Mr. Eckhart, moved that the bids just received be compiled, summarized and tabulated by the Chief Engineer and referred to the Committee on Engineering.

The motion prevailed unanimously and it was so ordered.

The following is

THE SCHEDULE OF BIDS FOR SUPPLYING AND ERECTING THE SUPERSTRUCTURE FOR THE TOW PATH BRIDGE CROSSING RIVER DIVERSION CHANNEL ON SECTION 17.

No. of Bid as Received	Name and Address of Bidder.	Amount Deposited with Bid.
1	C. L. Strobel, Chicago, Ill.	$1,000 00
2	Massillon Bridge Company, Massillon, O.	1,000 00
3	The King Bridge Company, Cleveland, O.	1,090 00
4	American Bridge Works, Chicago, Ill.	1,090 00
5	The J. G. Wagner Company, Milwaukee, Wis.	1,000 00
6	Wisconsin Bridge and Iron Company, Milwaukee, Wis.	1,000 00
7	Penn Bridge Company, Beaver Falls, Pa.	1,000 00
8	Chicago Bridge and Iron Company, Chicago, Ill.	1,000 00
9	The Joliet Bridge and Iron Company, Joliet, Ill.	1,000 00
10	The Pennsylvania Steel Company, Steelton, Pa.	1,009 00
11	The Phœnix Bridge Company, Chicago, Ill.	1,000 00

The following are

THE BIDS IN DETAIL FOR SUPPLYING AND ERECTING THE SUPERSTRUCTURE FOR THE TOW PATH BRIDGE CROSSING RIVER DIVERSION CHANNEL ON SECTION 17.

In Order of Magnitude—Lowest Bid First—Opened September 20, 1899.

No. of Bid as Received	No. of Bid in order of Magnitude	Name and Address of Bidder	Superstructure	Extra Iron or Medium or Soft Steel	Extra Lumber, per 1,000 ft. B. M.
				Cts.	
9	1	The Joliet Bridge and Iron Co., Joliet, Ill.	$ 20,975 00	5	$ 30 00
6	2	Wisconsin Bridge and Iron Co., Milwaukee, Wis.	23,350 00	5	30 00
2	3	Massillon Bridge Co., Massillon, O.	23,675 00	4¼	30 00
5	4	The J. G. Wagner Co., Milwaukee, Wis.	23,770 00	5	35 00
3	5	The King Bridge Co., Cleveland, O.	24,500 00	6	35 00
7	6	Penn Bridge Co., Beaver Falls, Pa.	24,848 00	4½	27 50
1	7	C. L. Strobel, Chicago, Ill.	25,995 00	5¼	40 00
8	8	Chicago Bridge and Iron Co., Chicago, Ill.	26,231 00	5½	35 00
4	9	American Bridge Works, Chicago, Ill.	26,300 00	5	35 00
10	10	The Pennsylvania Steel Co., Steelton, Pa.	27,715 00	8	45 00
11	11	The Phoenix Bridge Co., Chicago, Ill.	29,335 00		

ADJOURNMENT.

On motion of Mr. Wenter, seconded by Mr. Jones, the Board then adjourned.

Joseph F. Haas

Clerk.

PROCEEDINGS

—OF THE—

BOARD OF TRUSTEES

—OF THE—

SANITARY DISTRICT OF CHICAGO.

SEPTEMBER 26, 1899.

OFFICIAL RECORD

Published by authority of the Board of Trustees of the Sanitary District of Chicago.

SPECIAL MEETING.

A special meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Tuesday, September 26, 1899, at 11 o'clock A. M., pursuant to call.

On roll-call Messrs. Boldenweck, Carter, Jones, Kelly, Mallette, Smyth and Wenter—seven members, were present.

President Boldenweck then called the Board to order.

CALL FOR MEETING.

The Clerk then read the call for the meeting, which is as follows:

"CHICAGO, Sept. 22, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—At the request of President Boldenweck, and in accordance with Rule 4 of the Rules and Regulations, I hereby call a special meeting of the Board of Trustees of the Sanitary District of Chicago, to be held in the rooms of the Board, Security Building, on Tuesday, September 26, 1899, at 11 o'clock A. M., for the purpose of considering and passing upon the payment of vouchers and for such other business as may properly come before the meeting.

Respectfully submitted,

Signed) JOSEPH F. HAAS,
Clerk."

MINUTES.

The minutes of the regular meetings held September 13th and 20th, 1899, were approved as printed, on motion of Mr. Kelly, seconded by Mr. Jones.

VOUCHERS.

The Clerk presented the following vouchers:

*PAY ROLLS.

Engineering Department (Chief Engineer's roll, September, 1899)	$ 1,250 00	
Engineering Department (Division of Construction roll, September, 1899)	7,736 98	
Engineering Department (Division of Drafting and Designing roll, September, 1899)	2,595 68	
Engineering Department (Division of Records roll, September, 1899)	697 50	
Engineering Department (Discharge roll, September, 1899)	52 00	
		$12,332 16
Clerical Department (Clerk's roll, September, 1899)		1,043 33
Law Department (Attorney's roll, September, 1899)	$ 1,468 34	
Law Department (Joliet roll, September, 1899)	458 34	
		$ 1,926 68
Treasury Department (Treasurer's roll, September, 1899)		166 66
General Account (General roll, September, 1899)	$ 425 00	
General Account (Steamer Juliet, first half September, 1899)	102 00	
General Account (Steamer Juliet, second half September, 1899)	97 50	
General Account (Streams Examination roll, September, 1899)	135 00	
General Account (Trustees' roll, September, 1899)	2,333 33	
		$ 3,092 83
Maintenance Account (Pumping Plant roll, September, 1899)		807 08
Police Department (Marshal's roll, September, 1899)		2,648 81
Total		$22,017 55

GENERAL ACCOUNT.

Levi Brothers (sundries)	$ 6 85	
Schlesinger & Mayer (sundries)	8 85	
Ashland Ice Company (ice)	15 00	
Youghiogheny & Lehigh Coal Company (coal)	18 60	
Thomas B. Banner (fittings)	5 45	
H. Lewis & Co. (paints)	9 75	
Chicago Engineer Supply Company (boiler repairs)	18 44	
Robt. E. Hills (fittings)	33 66	
*D. C. Deegan & Co. (sundries)	61 43	
*Koch & Lee Company (sundries)	79 98	
*H. L. Regensberg & Co (sundries)	94 46	
*Arthur R. Reynolds (streams examination)	248 82	
		$ 601

*CONSTRUCTION ACCOUNT.

Geo. M. Huss (By-Pass)	$ 706 67	
Lydon & Drews Company (dredging Chicago River)	1,629 25	
		$ 2,335 11
Grand total		$ 24,954

*To be paid by warrants with interest coupons attached, drawn against the Tax Levy for 189

Mr. Carter, seconded by Mr. Wenter, moved that the vouchers, as read and shown above, be approved and ordered paid.

On roll call the vote stood: Yeas—Messrs. Boldenweck, Carter, Jones (*except as to voucher in favor of George M. Huss fov $706.67, on which he was excused*), Kelly, Mallette, Smyth and Wenter—seven (*except as above stated*). Nay—none.

Upon this result the President declared the motion carried.

REPORT IN REFERENCE TO EXECUTION OF AGREEMENT WITH CITY OF CHICAGO FOR CONSTRUCTION OF BRIDGE AT CANAL STREET.

The Clerk presented and read a report transmitting the agreement and general specifications between the City of Chicago and the Sanitary District of Chicago for the construction of a bridge over the Chicago River at Canal Street, the report setting forth that said agreement has been duly executed by the Mayor and Clerk of said City, and also by the President and Clerk, as authorized by the Board at the meeting held August 30, 1899 (page 6015 of the Proceedings), and a duplicate copy of same delivered to the City Clerk, and therefore recommending that said agreement be printed and placed on file.

By unanimous consent the report was ordered received, printed and placed on file.

The following is

THE AGREEMENT:

"CHICAGO, September 27, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I herewith transmit the agreement, dated September 21, 1899, between the City of Chicago and the Sanitary District of Chicago for the construction of a bridge over the Chicago River at Canal Street, the same having been duly executed by the Mayor and Clerk of the city and also by your President and Clerk, as authorized by the Board of Trustees at the meeting held August 30, 1899 (page 6015 of the proceedings), and a duplicate copy of same, duly executed, delivered to the City Clerk; and I therefore recommend that said agreement be printed and placed on file.

Respectfully submitted,

(Signed) JOSEPH F. HAAS,
Clerk."

"THIS INDENTURE, Made and entered into this twenty-first day of September, A. D. 1899, by and between the City of Chicago, of the first part, and the Sanitary District of Chicago, of the second part,

WITNESSETH. That upon the terms, conditions and covenants herein expressed, the said Sanitary District of Chicago hereby agrees with the said City of Chicago that the said Sanitary District will construct a new bridge of the Bascule type, without center pier, over and across the South Branch of the Chicago River at Canal Street, in said city, which is estimated to cost Seventy Thousand Dollars ($70,000).

It is hereby covenanted and agreed by the said City of Chicago that it will pay to the said Sanitary District the sum of Thirty-five Thousand Dollars ($35.000), to be applied by said Sanitary District upon the cost of said bridge; said payment of said Thirty-five Thousand Dollars ($35,-000) shall be made as follows: Sixty per cent of said Thirty-five Thousand Dollars ($35,000) shall be paid by said City of Chicago to the said Sanitary District when the material for the superstructure of said bridge shall have been delivered at the site of said bridge, upon the Commissioner of Public Works of said City of Chicago receiving notice thereof, in writing, from the Chief Engineer of said Sanitary District. The remainder of said Thirty-five Thousand Dollars, ($35,000) namely, Forty (40) per cent thereof, shall be paid to the said Sanitary District upon the completion and acceptance of said bridge by the Commissioner of Public Works for said City of Chicago.

The said Sanitary District of Chicago also hereby agrees to convey, by a quit claim deed, to the City of Chicago, the following described real estate, to-wit:

All that part of Lot three (3), Block thirty three (33), of Canal Trustees' Subdivision of the west half (½) of Section twenty-one (21), Township thirty nine north, Range fourteen (14), east of the Third (3rd) Principal Meridian, and as much of the southeast quarter (¼) as lies west of the South Branch of the Chicago River, lying northerly of the following described line, to wit: Beginning at the dividing line between Lot three (3) and Lot two (2), at its intersection with the south dock line of the South Branch of the Chicago River; thence southwesterly to a point in the dividing line between Lot three (3) and Lot four (4), distant one hundred and eighty (180) feet from the north line of Grove Street; and

All that part of Lot four (4), block thirty-three (33), of Canal Trustees' Subdivision of the west half (½) of Section twenty-one (21), Township thirty nine (39) north, Range fourteen (14), east of the Third (3d) Principal Meridian, and so much of the southeast quarter (¼) as lies west of the South Branch of the Chicago River, lying northerly of the following described line and east of the east line of Canal Street, to-wit: Beginning at a point in the dividing line be-

tween Lot three (3) and said Lot four (4), a distance of one hundred and eighty (180) feet from the north line of Grove street; thence southwesterly to a point in the east line of Canal Street one hundred and three (103) feet distant from an angle eighty-three and five-tenths (83.5) feet distant from the northeast corner of Grove Street and Canal Street, containing twenty-seven hundred and seventy-five (2,775) square feet, more or less.

And, also, all that part of Lot four (4), Block thirty-three (33), of Canal Trustees' Subdivision of the west half (½) of Section twenty-one (21), township thirty-nine (39) north, Range fourteen (14), east of the Third (3d) Principal Meridian, and so much of the southeast quarter (¼) as lies west of the South Branch of the Chicago River, lying east of Todd Street and west of Canal Street and south of dock line of the South Branch of the Chicago River, containing one hundred and seventy six and five-tenths (176.5) square feet, more or less, in the County of Cook and State of Illinois.

But the said Sanitary District shall reserve an easement over and upon said lands for any work of construction or other character which the said Sanitary District may wish to undertake for any of its corporate purposes, which, however, shall not be incompatible with the operation of said bridge when completed.

The said Sanitary District of Chicago further agrees that in the event the total cost of said bridge, including the cost of the above described real estate, shall aggregate a sum less than seventy thousand dollars ($70,000), then and in that case an amount in money equivalent to fifty (50) per cent of the difference between said aggregate amount and seventy thousand dollars ($70,000) shall be refunded to the City of Chicago, or deducted from the final payment of forty (40) per cent above required by said City of Chicago.

And it is further agreed that the Sanitary District may select any one of the following style of bridges: The Scherzer Rolling Lift Bridge, or the bridge designed by M. G. Schinke of Milwaukee, Wisconsin, either one of which is hereby declared to be acceptable to the said Commissioner of Public Works; or any other style of Bascule Bridge which it can be demonstrated to the satisfaction of the Engineer of the City of Chicago and the Chief Engineer of the Sanitary District can be successfully erected and economically operated.

It is further agreed that when said bridge is constructed ready for operation and accepted by the Commissioner of Public Works of said City of Chicago, that the said City of Chicago shall thereafter maintain said bridge free of all cost, charge and expense to the said Sanitary District of Chicago.

The specifications and plan hereto attached are hereby made a part of this contract:

IN TESTIMONY WHEREOF the parties have, respectively, on the day and year first above written, caused these presents to be sealed with their corporate seals and executed by their respective officers, as hereunder written.

(Signed) CARTER H. HARRISON,
Mayor of the City of Chicago.

(Signed) WM. LOEFFLER,
Attest: *City Clerk.*

(Signed) WILLIAM BOLDENWECK,
President of the Board of Trustees of the Sanitary District of Chicago.

(Signed) JOSEPH F. HAAS,
Attest: *Clerk of Said Board.*"

"GENERAL SPECIFICATIONS.

For a highway bridge to be erected over the South Branch of the Chicago River at Canal Street in the City of Chicago.

Plans—All plans submitted shall have a uniform size of twenty-six (26) inches by forty (40) inches inside border lines, with a border margin of one-half inch.

All tracings of such design as may be accepted shall, on acceptance, become the property of the Sanitary District of Chicago.

It shall be agreed that before any work of any kind is undertaken the type of bascule bridge, as well as the loads and unit stresses for which the bridge shall be calculated, shall be submitted to the Commissioner of Public Works or his authorized agents for approval.

The Sanitary District of Chicago shall before contract is let, submit to the Commissioner of Public Works a set of general detail plans with specifications for approval. These plans shall be complete that everything pertaining to the strength of the bridge and its operating capacity in detail can be definite and accurately ascertained, and

designs must have a detail estimate of quantities of material to be used in the structure. Complete detail specifications shall accompany the design.

Before any work is done at the site of the bridge the Sanitary District shall submit the shop or working plans for approval to the Commissioner of Public Works. Two sets of general detail plans, as well as shop plans, shall be filed with the Department of Public Works.

No changes in approved plans or otherwise shall be allowed before such changes have received the approval of the Commissioner of Public Works or his authorized agents. Such approval shall always be in writing.

The plan attached hereto and dated August 11, 1899, becomes a part of these specifications.

Inspectors—It is particularly understood that all inspectors appointed by the Sanitary District upon this work shall be acceptable to the Commissioner of Public Works.

Unit Strains—Where piles are used in the foundations the load on each pile from dead and live load combined shall not exceed ten (10) tons.

Cooper's General Specifications for Steel Highway Bridges, "1896," shall be part of these specifications. The live load used shall be that given by Cooper as Class "A-1".

General Data—The floor on the movable part of the structure shall consist of two courses of planking. The first course shall be four by six yellow pine, laid diagonally six inches apart, and the top or wearing surface shall be oak, three and one half inches thick.

The fixed portions shall be 4 inch surfaced yellow pine, paved with 7½-inch yellow pine blocks.

The bridge shall have a single roadway twenty-two (22) feet in the clear between wheel guards, and two sidewalks seven (7) feet in the clear, and shall have an overhead clearance of sixteen (16) feet.

The elevation of the roadway is +19.5, Chicago datum. There must be under the bridge a clear height of sixteen and one-half (16½) feet above Chicago datum for a space of at least forty (40) feet, at right angles to the center line of the Channel.

It shall be understood and agreed that the center opening of the river channel shall be located as near as practicable to the proposed new dock line of the south bank of the river.

The cut-off for the foundation piles in the piers next to the channel shall be twenty two (22) feet below Chicago datum."

MONTHLY REPORT FROM ENGINEERING DEPARTMENT.

The Clerk presented a report from the Engineering Department for the month of August, 1899, which, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, Sept. 22, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I herewith transmit the report of the Engineering Department for the month of August, 1899, giving the detailed operations of the several divisions constituting the same.

The value of the construction work done was $265,993.80, divided as follows: Main Channel, $187,770.40; Bridges, $77,055.74; general, $1,167.66. The engineering expenses were $13,722.94, divided as follows: Salaries, $11,682.81; supplies, etc., $2,040.13. A capitalization voucher for $47,591.00 was issued to the Chicago, Santa Fe & California Railway Company, account of the Santa Fe Bridge across the Main Channel, Section 8.

DIVISION OF CONSTRUCTION.

The weather during the month was very favorable for work. Rain was recorded on but four days and the temperature varied between 66 degrees and 90 degrees Fahrenheit.

Chicago River Improvement—The contractors for the substructure of the By-Pass made a rate of progress which, if continued, will finish its contract by November 1st. The average number of men employed per day was 143.8 for the thirty days and 160 men, excluding Sundays. The quantities vouchered were as follows: 3,900 cubic yards of excavation, 2,550 cubic yards of concrete, 8,300 lineal feet of piles driven, and 327,000 feet B. M. of timber.

The contractors for the superstructure of the By-pass prosecuted their work so vigorously that at the end of the month the metal work at Adams Street was practically completed, including the

painting. On the 23rd concrete work on the arches between the girders was started and 200 cubic yards were put in place.

The Lydon & Drews Co.'s Dredge No. 2 removed 27,400 cubic yards of clay and sludge from the river in the vicinity of Taylor Street, working 21 shifts of 8 hours each.

George M. Huss continued to unload girders from the Jackson Street By-Pass at Thirty-first Street and Stewart Avenue, where they are stored temporarily until the work has advanced far enough to be able to put them in place.

The coffer dam at the west main abutment of the proposed Taylor Street Bridge was completed, all necessary excavation has been made and all vertical piles were put in place. On the east main abutment the sheeting for the coffer dam is in and some excavation made; 900 cubic yards of excavation were vouchered on this account.

At the C. T. T. R. R. Co.'s Bridge, near Taylor Street, the present bridge has been moved over to its temporary position, the east abutment is staked out and cross sectioned and ready for excavation and the putting in of the coffer dam.

Section "O"—The excavation of the old C. M. & N. R'y Co.'s bank across the Main Channel at the west end of the Section was continued with a scraper force all month and 6,883 cubic yards of Glacial Drift were vouchered for same.

Excavation at the site of the eight-track bridge at Campbell Avenue was continued night and day throughout the month with scraper and peteler car gangs. The total output was 25.978, of which 18,174 cubic yards were removed from the full width channel and 7,800 cubic yards from the bridge pit outside of the Main Channel prism. The building of a new dam across the completed channel east of the present coffer-dam with material taken from the bridge pit was commenced with a wheelbarrow gang on the 16th and continued with a scraper gang after the 26th; 10,160 lineal feet of piles were removed from the bridge pit and about 3,900 lineal feet remain to be drawn.

A warehouse was erected on the east bank of the slip on line of Robey Street for the storage of cement to be used in the construction of the eight-track bridge. The building was ready for use on the 28th, but no cement had been stored in it up to the end of the month.

The pumping plant on this Section continued operations until the 6th, at which time all the water that could be taken out by the pump had been removed. The crew was transferred to the Section "M" pump and a watchman stationed at the abandoned plant.

Section "N"—The shovel and train plant on this section worked 13½ shifts to the 19th, on which day the steam shovel broke down and was removed from the pit on the 25th. This plant removed 12,711 cubic yards of Glacial Drift since the last report. The installation of the steel incline mentioned in the last report was continued and completed at the end of the month and a new steam shovel was placed in the pit on the 28th. The plant had not started work at the end of the month, owing to a leak in one of the boilers. A pump to supply boilers of this plant with water was installed at the collateral channel. Excavation under the old Kedzie Avenue roadway was continued with a wagon force during the entire month. The quantity removed was not measured, but is estimated at 5,000 cubic yards. The shovel and incline plant west of Kedzie Avenue continued work in day shifts throughout the month and removed 18,187 cubic yards of Glacial Drift.

The work of ballasting the new C. M. & N. R. R. Co.'s tracks was continued to the 12th. From the 28th to the 31st a large force of men was employed unloading sand from cars along the new tracks between Kedzie Avenue and the Santa Fe Twenty-sixth Street Line.

The A., T. & S. F. R'y Co. had a small force of men at work several days ballasting and tamping its new Twenty-sixth Street Line tracks.

Section "M"—The pumping plant on this section started operations on the 9th and continued, with slight interruptions, nights and days throughout the month. On the 31st the water in Sections "O" and "M" was reduced to 5.3 feet above grade.

Sections "L" and "K"—Excavation o the Main Channel under the old roadbec of the Belt Railway was continued witl scraper forces night and day during th entire month. At the end of the mont the south slope of the Channel wa ready for the contractor for the substruc ture of the Belt Railway Permaner Bridge to begin excavation for the sout abutment. Quite a number of old pile were found embedded in the bank an were removed by force account. 10,13

cubic yards of Glacial Drift were vouchered during the month.

The Belt Railway Company had a number of men at work five days on the temporary trestle and tracks.

Sections "K," "I" and "H"—The water in these three sections stood 19.5 above grade and was lowered by means of cutting through the old Santa Fe Right of Way at the intersection of Sections "G" and "H." allowing it to flow down the channel to the Lockport pumps. At the end of the month the water stood 11.37 above grade and the cut in the embankment is being lowered as rapidly as possible.

Sections "H" and "G"—A scraper force continued work throughout the month near the dividing line of these two sections. Part of the time was employed in cutting through the embankment mentioned in the above paragraph. The shovel and incline plant continued work in night and day shifts all month, losing a number of shifts on account of the water running through the cut. The quantities vouchered were as follows: Section "G," 13,390 cubic yards of Glacial Drift; Section "H," 10,899 cubic yards of Glacial Drift.

Section "E"—Peteler car plants continued the removal of rock from the 1st to the 11th and from the 17th to the 22d, at which time the regular excavation of this section was completed. The work of removing the dam situated at the dividing line of Sections "E" and "D" was begun on the 29th. A small force was employed at the end of the month clearing up the section and removing the plant. The quantities vouchered were as follows: Glacial Drift, 824 cubic yards; solid rock, 5,578 cubic yards; slope revetment, 833 cubic yards. The revetment wall was completed on the 30th, the necessary stone having been hauled from the spoil bank the last five days of the month.

The remainder of the piers of the old Summit Road Bridge over the Desplaines River was removed by the regular contractors for this section.

Work on the substructure of the C. T. T. R. R. Co.'s Permanent Bridge over the Desplaines River was continued throughout the month. The back filling behind the south abutment was completed on the 12th and Pier No. 3 was completed on the 25th. Stone cutting was continued throughout the entire month. The quantities vouchered for this work were as follows: Excavation, 1,462 cubic yards; sheet piling and bracing, 6,318 feet B. M.; Portland cement concrete, 60 cubic yards; masonry, 174 cubic yards; old masonry removed, 53 cubic yards. Some steel arrived for the new span and at the end of the month the false work and traveler for the erection of the said span were in place.

Section 8—The work of excavation in the Main Channel was resumed on the 20th of July and continued throughout the month of August. One steam derrick and a channeler and drills were used in the work and an average of 22 laborers employed. The material was loaded on dump cars and hauled by teams to the embankment

Work on the Santa Fe Railway embankment was carried on during the month with a small force of laborers, who loaded the material from the spoil bank into one-yard cars, which was hauled by car teams to place. About 4,000 yards were removed, a portion of the material placed having been taken from the Main Channel. Small forces were also engaged in excavation at the Santa Fe Bridge and at the approach to the Lemont Highway Bridge The following quantities were vouchered for the above work: Main Channel, solid rock, 1,000 cubic yards; embankment, 4,000 cubic yards; Stephens Street Subway excavation, 105 cubic yards; excavation, railroad bridge, 32 cubic yards; excavation, highway bridge, 205 cubic yards.

Excavation for the south abutment of the Stephens Street Subway was begun on the 17th and continued the balance of the month. An average of 13 laborers were engaged and 400 cubic yards of material removed and vouchered.

Section 12—Work on the Romeo Road Bridge consisted of placing material from the west end of bridge in the walled roadway on the east end and was done with a force of five or six laborers and dump carts. A voucher for 800 cubic yards was rendered.

Section 14—Both pumps of the pumping plant at this station were in operation from the 1st to the 5th, from the 13th to the 17th and from the 23rd to the 25th—a total of 14 days. One pump only was in operation on the 6th and 7th, from the 18th to the 22nd and from the 27th to the 31st—a total of 12 days. From the 8th to the 12th both pumps were shut down while the rotary pump

was undergoing repairs. The elevation of water on the 31st was —28.47, being 1.32 above grade.

Section 16—Work continued on this section during the entire month and the forces used did not vary materially from those reported last month. About 55 men were engaged daily in excavation. A force of 15 laborers and 3 teams was engaged for 5 days in grading the approach to the Lockport Road Bridge and an average of 20 laborers and 4 teams from the 7th to the 25th in grading the approach to the Wire Mills Road Bridge. The quantities vouchered for this work were as follows: Excavation, 17,500 cubic yards; Lockport Road, broken stone, 513 cubic yards; Wire Mills Road, broken stone, 1,050 cubic yards.

Section 17—The plant in the new river channel consisted of 1 steam shovel, 1 large derrick, 2 locomotives and 7 drills, all of which were in double shifts. One car team hoist ran daily and 1 steam hoist at the south end of the section ran both day and night. On the 17th one of the steam hoists was moved to the tail race and installed on the east bank of the middle basin for use in riprapping the embankment. In the tail race 3 channelers, 1 large derrick, 1 locomotive and drills were used and work was carried on both day and night. The dredge in the upper basin ran double shifts up to the 20th. The quantities vouchered were as follows: Solid rock, 38,400 cubic yards; earth, 34,400 cubic yards; raising Tow-Path masonry, 300 cubic yards; completion of cribbing, 105,000 feet B. M.; sinking and filling cribbing, 1,000 cubic yards.

Section 18—Work of excavating at the dam and conduit was continued throughout the month and 95 per cent of the foundation was made ready. Concrete was placed from the 1st to the 3rd and from the 19th to the end of the month. About 95 per cent of this work was completed. Average number of men employed on excavation, 18; on concrete, 50. A new derrick and hoist engine was set up on the east end of the tail race and a large amount of debris removed from the site of excavation. Excavation for foundations for retaining wall was commenced on the 8th and continued to the 24th; a force placing concrete was worked between same dates and shut down on account of water until a pump could be set up. Average number of men employed on excavation, 10; on concrete, 45. The usual car plant was kept at work on the Main Channel south of Jefferson Street and 90 per cent of the Channel below Jefferson Street was completed. A force was also maintained wasting on the east side of the Main Channel north of Cass Street. Average number of men employed on car plant, 118; on wasting, 46. The material taken from the Main Channel was placed in the levee south of McDonough Street Bridge. The material taken from the dam and conduit was placed in the I. & M. Canal riprap work. Excavation to grade under the Jefferson Street temporary bridge was completed on the 4th and the erection of the timber work was begun on the 11th. About 85 per cent of the structure was completed. Average number of men employed, 19. Besides the new derrick and hoist engine mentioned, 6 three-yard cars were added to the plant during the month. During the early part of the month a great scarcity of labor existed, but the force on the section was considerably increased during the last two weeks. The average number of men employed on the entire section was 318 and the average number of teams was 14. About 48 per cent of the entire work is completed.

DIVISION OF DRAFTING AND DESIGNING.

The regular platting was continued on the contour maps between Lockport and Willow Springs, the 50 feet scale maps of the Chicago River and the atlas of the right of way. Some work was done on the maps to be used in constructing the relief map of the Main Channel.

The following drawings, etc., were made: One set 200-feet scale maps of the Chicago River for the Special Canal Commission; tracings of Desplaines River from Lake Joliet to Illinois River.

In the Bridge Department office the greater part of the month was taken up with the work of the temporary structures at the Pan Handle crossing; some time was given to the temporary structure at the Belt crossing and to the temporary work at Jefferson Street, Joliet.

The work of this branch of the office force, exclusive of the Bridge and Drafting Department, was a continuation of its former work, with the exception that some time was given to plans for the re-

moval of a section of Dam No. 1 at Joliet.

DIVISION OF RECORDS.

The work of the Division has been carried on in the usual manner.

I estimate the expenses of this Department for the month of September will be $200,000.00.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,

Chief Engineer."

SANITARY DISTRICT OF CHICAGO—ENGINEERING DEPARTMENT.

CLASSIFIED STATEMENT OF EXPENDITURES DURING THE MONTH OF AUGUST, 1899.

Classification.	Engineering Expenses.			Construction.	Capitalization.
	Salaries.	Supplies, Etc.	Total.		
Maps and Plans for General Use of Sanitary District	$ 566 70	$ 14 63	$ 581 33	.....	.....
Chicago River Survey	94 50	.....	94 50	.....	.....
Chicago River Improvement	1,841 27	172 80	2,014 07	$41,528 13	.....
Right of Way	96 40	25 46	121 86	.....	.....
Flood Measurements	91 60	45 00	136 60	.....	.....
Disposal Works and Joliet Project	2,407 65	790 66	3,198 31	96,158 67	.....
Regular Construction—Main Channel and River Diversion	1,471 58	160 01	1,631 59	31,230 71	.....
Wire Mills Permanent Bridge over Main Channel, Sec. 16	76 00	51 88	127 88	4,889 56	.....
Lockport Temporay Roadway, Sec. 16	.....	.....	.....	154 11	.....
Lockport Road Permanent Bridge over Main Channel, Sec. 16	56 80	14 63	71 43	1,228 88	.....
Romeo Road Permanent Bridge over Main Channel, Sec. 12	115 20	2 96	118 16	1,317 59	.....
A., T. & S. Fe Ry. Co.'s Permanent Bridge over Main Channel, and track deviation, Sec. 8	481 85	20 09	501 94	1,401 91	$47,591 00
Willow Springs Temporary Bridge over Main Channel, Sec. 1	.....	.....	.....	—75 00	.....
Willow Springs Permanent Bridge over Main Channel, Sec. 1	.....	69	69	.....	.....
C. T. T. R. R. Co.'s Temporary Bridge over Desplaines River, Sec. E	40 00	4 00	44 00	217 36	.....
C. T. T. R. R. Co.'s Permanent Bridge over Desplaines River, Sec. E	170 00	114 32	284 32	3,687 61	.....
Lyons-Summit Road Permanent Bridge over Main Channel, Sec. F	.....	.....	.....	50 20	.....
Lyons-Summit Road Permanent Bridge over Desplaines River, Sec. E	50 00	1 10	51 10	.....	.....
A., T. & S. Fe Ry. Co.'s Permanent Bridge over Main Channel and track deviation, Sec. G	.....	.....	.....	2,233 88	.....
C. & W. I. Belt Ry's Temporary Bridge over Main Channel, Sec. K	130 00	2 22	132 22	3,249 73	.....
C. & W. I. Belt Ry's Permanent Bridge over Main Channel, Sec. K	185 00	2 60	187 60	.....	.....
Pumping Plant, Sec. M	350 00	1 60	351 60	1,602 43	.....

A., T. & S. Fe Ry. Co.'s Permanent Bridge over Main Channel and track deviation, Sec. N	75 00	.....	75 00	398 88	.....
C., M. & N. R. R. Co. 's Permanent Bridges over M. C. and Kedzie Avenue and track deviation, Sec. N	95 00	1 80	96 80	.....	.....
Southwest Boulevard Permanent Bridge over Main Channel, Sec. O	.....	47	47	46 62	.....
Pan Handle R. R. Co.'s Temporary Bridges over Main Channel, Sec. O	390 00	46 90	436 90	9,933 52	.....
Pan Handle R. R. Co.'s Permanent Bridge over Main Channel, Sec. O	700 00	260 94	960 94	26,556 75	.....
Pumping Plant, Sec. O	155 00	50	155 50	2,821 21	.....
Taylor Street Bridge over Chicago River	358 10	40	358 50	3,721 80	.....
C. T. T. R. R. Co.'s Bridge over Chicago River	373 15	113 45	486 60	9,841 69	.....
Tow Path Permanent Bridge, Sec. 17	35 00	39 94	74 94	.....	.....
Jefferson Street Temporary Bridge, Sec. 18	485 00	1 03	486 03	5,250 00	.....
Mortar, Sand and Cement Tests	642 01	89 70	731 71	.....	.....
Photographs of Works	150 00	60 35	210 35	.....	.....
Totals	$11,682 81	$2,040 13	$13,722 94	$ 247,446 24	$47,591 00

VALUES— STATEMENT SHOWING CONDITION OF

Designation.	Amount earned during August, 1899.				Amount earned to date.			
	Main Channel.	Bridges.	General.	Total.	Main Channel.	River Diversion.	Bridges.	General.
Chicago River Imp'ment	$46,556 57			$46,556 57	$ 384,745 06			
O	13,044 78	$10,187 52		23,232 30	373,479 34		$ 91,570 31	
N	7,106 54			7,106 54	226,482 63		3,525 02	
M.	1,886 31			1,886 31	160,070 52			
L					217,287 06			
K	7,061 45	3,249 73		10,311 18	297,981 64		7,512 11	
I.					239,846 00			
H	3,160 71			3,160 71	304,734 12			
G	3,749 20			3,749 20	398,638 40			
F					341,404 40	75,627 73		
E	5,134 99	217 36		5,352 35	752,932 27	29,091 91	15,673 34	[illegible]
D					592,039 29	2,880 54		
C.					443,342 59	40,135 18		[illegible]
B					438,986 42	59,451 34		[illegible]
A					801,584 08	115,741 73		
1.		—75 00		—75 00	1,210,660 37	143,908 29	1,912 00	[illegible]
2.					877,695 00	63,190 86		[illegible]
3.					840,952 93	338 42		
4.					975,248 98	83,304 43		[illegible]
5.					749,207 28	6,653 64		
6.					687,835 61	55,911 37		
7.					722,544 74	66,193 19		[illegible]
8.	667 83			667 83	889,817 26	89,683 90	19,853 89	[illegible]
9.					794,838 28	23,573 72	1,012 30	
10.					921,454 79	78,729 58		[illegible]
11.					797,717 50	43,854 42		
12.					837,660 69	21,768 52	1,136 87	
13.					819,388 19			
14					931,457 10			
15.					551,915 85	117 61		
16.	6,979 11			6,979 11	59,719 66		1,500 00	
17.	44,228 47			44,228 47	286,309 18			
18.	40,886 79	6,000 00		46,886 79	184,089 93		9,556 42	
Disposal Wks. at Lockp't	7,307 65			7,307 65	261,750 67			
Repairing I. & M. Canal.								18,[illegible]
Van Buren St. Approach Span, Chicago River...							4,050 00	
Taylor St. Br. over Chicago River		4,253 48		4,253 48			16,920 14	
C. T. T. R. R. Co.'s Br. over Chicago River....		9,841 69		9,841 69			55,746 27	
S. W. Blvd. Br., over M. C., Sec. O		46 62		46 62			149,962 42	
Pan Handle Br., over M. C., Sec. O		27,239 25		27,239 25			94,447 34	
C.,M. & N. R. R. Co.'s Br., over M. C., Sec. N....							160,134 67	
C.,M. & N. R. R. Co.'s Br., over Kedzie Av., Sec. N							14,515 47	
Kedzie Av. Br., over M. C., Sec. N							43,118 58	
A., T. & S. F. Ry. Co.'s Br., over M. C., Sec. N.		398 88		398 88			79,900 78	
Belt Ry. Br. over M. C., Sec. K								
A., T. & S. F. Ry. Co.'s Br., over M. C., Sec. G.		2,233 88		2,233 88			114,305 72	
A., T. & S. F. Ry. Co.'s Br., over D. R., Sec. F.							19,210 73	
Lyons-Summit Road Br., over D. R., Sec. E.....							13,171 72	
Lyons-Summit Road Br., over M. C., Sec. F.....		50 20		50 20			41,148 77	
C. T. T. R. R. Co.'s Br., over M. C., Sec. E.....							30,082 75	
C. T. T. R. R. Co.'s Br., over D. R., Sec. E.....		4,057 60		4,057 60			9,723 30	
Willow Spgs. Highway Br., over M. C., Sec. 1							22,968 52	
A., T. & S. F. Ry. Co.'s Br. and Stephen Street Subway over M. C., Sec. 8		1,602 19		1,602 19			107,087 93	
A., T. & S. F. Ry. Co.'s Br., over D. R., Sec. 8.							23,275 07	
Lemont Highway Br., over M. C., Sec. 8.. ...							21,227 39	

CONSTRUCTION CONTRACTS, SEPTEMBER 1, 1899.

Total.	Amount Paid to Date.	REMAINING TO BE EARNED.			REMAINING TO BE PAID ON VOUCHERS.		
		Main Channel.	Bridges.	Total.	Retained Percentages.	Unpaid Vouchers.	Total.
$ 384,745 06	$ 317,045 03	$ 137,230 86	.....	$ 137,230 86	$ 28,498 19	$ 39,201 84	$ 67,700 03
465,049 65	454,418 75	8,665 87	.....	8,665 87	5,797 95	4,832 95	10,630 90
230,007 65	214,196 85	30,511 29	.....	30,511 29	12,498 22	3,312 58	15,810 80
160,070 52	160,070 52	.....	.....	.....	.....	.....	.....
217,287 06	217,287 06	2,287 45	.....	2,287 45	.....	.....	.....
305,498 75	300,474 85	6,672 05	.....	6,672 05	2,913 30	2,105 60	5,018 90
289,846 00	289,846 00	.....	.....	.....	.....	.....	.....
304,734 12	304,241 41	14,177 52	.....	14,177 52	.....	492 71	492 71
398,638 40	396,149 20	64 68	.....	64 68	.....	2,489 20	2,489 20
417,082 13	375,082 00	.....	.....	.....	34,103 38	7,846 75	41,950 13
797,957 52	691,551 33	29 58	.....	29 58	97,406 83	8,999 36	106,406 19
594,919 83	594,919 83	.....	.....	.....	.....	.....	.....
484,259 40	484,259 40	.....	.....	.....	.....	.....	.....
498,587 76	498,587 76	.....	.....	.....	.....	.....	.....
917,325 81	917,325 81	.....	.....	.....	.....	.....	.....
1,356,510 66	1,349,615 00	.....	.....	.....	6,179 83	715 83	6,895 66
940,975 86	940,975 86	.....	.....	.....	.....	.....	.....
841,291 35	841,291 35	.....	.....	.....	.....	.....	.....
1,058,638 66	1,058,638 66	.....	.....	.....	.....	.....	.....
755,860 92	755,860 9	.....	.....	.....	.....	.....	.....
743,746 98	743,746 98	.....	.....	.....	.....	.....	.....
797,495 93	797,495 93	.....	.....	.....	.....	.....	.....
1,001,935 11	1,000,950 74	8,997 66	.....	8,997 66	433 12	551 25	984 37
819,424 30	819,424 30	.....	.....	.....	.....	.....	.....
1,009,136 70	1,009,136 70	.....	.....	.....	.....	.....	.....
841,571 92	841,571 92	.....	.....	.....	.....	.....	.....
860,566 08	860,566 08	.....	.....	.....	.....	.....	.....
819,388 19	819,388 19	.....	.....	.....	.....	.....	.....
931,457 10	931,457 10	.....	.....	.....	.....	.....	.....
552,033 46	552,033 46	.....	.....	.....	.....	.....	.....
61,219 66	47,966 97	6,103 50	.....	6,103 50	7,280 82	5,971 87	13,252 69
286,399 18	223,108 67	14,033 85	.....	14,033 85	26,668 16	36,622 35	63,290 51
193,646 35	145,001 24	224,780 00	.....	224,780 00	23,146 39	25,498 72	48,645 11
261,750 67	261,750 67	.....	.....	.....	.....	.....	.....
18,052 85	18,052 85	.....	.....	.....	.....	.....	.....
4,050 00	4,050 00	.....	15,445 87	15,445 87	.....	.....	.....
16,920 14	16,388 46	.....	66,786 72	66,786 72	531 68	.....	531 68
55,746 27	55,746 27	.....	283,722 40	283,722 40	.....	.....	.....
149,962 42	145,687 58	.....	6,000 00	6,000 00	4,228 22	46 62	4,274 84
94,447 34	72,413 34	.....	451,630 24	451,630 24	1,645 00	20,389 00	22,034 00
160,134 67	160,134 67	.....	.....	.....	.....	.....	.....
14,515 47	14,515 47	.....	.....	.....	.....	.....	.....
43,118 58	43,118 58	.....	.....	.....	.....	.....	.....
79,900 78	79,900 78	.....	.....	.....	.....	.....	.....
.....	.....	.....	167,292 50	167,292 50	.....	.....	.....
114,305 72	114,305 72	.....	.....	.....	.....	.....	.....
19,210 73	19,210 73	.....	.....	.....	.....	.....	.....
13,171 72	12,999 65	.....	.....	.....	172 07	.....	172 07
41,148 77	41,148 77	.....	.....	.....	.....	.....	.....
50,682 75	50,682 75	.....	.....	.....	.....	.....	.....
9,723 30	7,590 53	.....	8,448 45	8,448 45	658 49	1,474 28	2,132 77
22,968 52	22,968 52	.....	.....	.....	.....	.....	.....
107,087 93	72,186 45	.....	21,000 00	21,000 00	21,731 17	13,170 31	34,901 48
23,275 07	23,275 07	.....	.....	.....	.....	.....	.....
21,227 39	21,227 39	.....	.....	.....	.....	.....	.....

VALUES— STATEMENT SHOWING CONDITION OF

Designation.	Amount earned during August, 1899.				Amount earned to date.			
	Main Channel	Bridges.	General.	Total.	Main Channel.	River Diversion.	Bridges.	General.
Lemont Highway Br., over D. R., Sec. 8	.....	.....	.....	.....	.....	.....	$ 22,329 89	.....
Western Stone Co.'s Br., over D. R., Sec. 10	.....	.....	.....	.....	.....	.....	15,983 63	.....
Romeo Highway Br. over M. C., Sec. 12	.....	$ 1,392 59	.....	$ 1,392 59	.....	.....	29,731 14	.....
Lockport Highway Br. over M. C., Sec. 16	.....	1,293 00	.....	1,293 00	.....	.....	16,596 68	.....
Wire Mills Rd. Br., over M. C., Sec. 16	.....	5,066 75	.....	5,066 75	.....	.....	15,125 03	.....
E. J. & E. R. R. Co.'s Br., bet. Secs. 16 and 17.	.....	.....	.....	.....	.....	.....	41,984 62	.....
Cass St. Br. over M. C., Sec. 18	.....	.....	.....	.....	.....	.....	.....	.....
Jefferson St. Br. over M. C., Sec. 18	.....	.....	.....	.....	.....	.....	.....	.....
C. R. I. & P. R. R. Bridge over M. C., Sec. 18	.....	.....	.....	.....	.....	.....	3,250 00	.....
Crib work at Joliet	.....	.....	$1,167 66	1,167 66	.....	.....	.....	$33,367 [illegible]
Totals	$187,770 40	$77,055 74	$1,167 66	$265,993 80	$ 19,423,907 83	$1,000,156 38	$1,339,850 82	$73,367 [illegible]

CONSTRUCTION CONTRACTS. SEPTEMBER 1, 1899—*Continued*.

Total.	Amount Paid to Date.	REMAINING TO BE EARNED.			REMAINING TO BE PAID ON VOUCHERS.		
		Main Channel.	Bridges.	Total.	Retained Percentages.	Unpaid Vouchers.	Total.
$ 22,329 89	$ 22,329 89	.....	.....	.....	.....	.....	.....
15,983 63	15,983 63	.....	.....	.....	.....	.....	.....
29,731 14	26,911 33	.....	$ 200 00	200 00	$ 1,645 54	$ 1,174 27	$ 2,819 81
16,596 68	15,216 18	.....	1,000 00	1,000 00	151 62	1,228 88	1,380 50
15,125 03	10,058 28	.....	1,000 00	$ 1,000 00	177 19	4,889 56	5,066 75
41,984 62	41,984 62	.....	.....	.....	.....	.....	.....
.....	.....	.....	38,265 75	38,265 75	.....	.....	.....
.....	.....	.....	45,627 25	45,627 25	.....	.....	.....
3,250 00	2,843 75	.....	30,078 00	30,078 00	406 25	.....	406 25
33,307 56	33,307 56	.....	.....	.....	.....	.....	.....
$ 21,836,962 71	$ 21,379,675 36	$453,554 31	$1,136,497 18	$1,590,051 49	$276,273 42	$181,013 93	$457,287 35

QUANTITIES— STATEMENT SHOWING CONDITION OF CON

DESIGNATION.	AMOUNT DONE DURING AUGUST, 1899.				TOTAL DONE TO		
	Main Channel.				*Main Channel.*		
	Glacial Drift. Cu. Yds	Solid Rock. Cu. Yds	Piles & R.W.	Masonry and Concr't. Cu. Yds.	Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds.	Retaining Wall. Cu. Yds.
Chicago River Improvement	31,300		8,500	2,750	900,700		
O	25,057				1,682,470		
N	30,898				957,926		
M	2,898				730,573		
L					1,102,980		
K	12,839				1,168,453		
I					1,159,384		
H	10,899				1,045,123		
G	13,390				1,395,258		
F					1,093,047	37,448	
E	824	5,578			1,907,362	212,669	
D					1,934,890	87,030	
C					1,881,545		
B					1,570,036	15,586	
A					2,560,648	13,312	
1					1,282,267	554,826	68,256
2					724,905	483,750	38,506
3					425,705	760,778	14,039
4					1,096,746	262,428	68,169
5					952,526	378,609	56,059.1
6					683,248	549,355	30,381.7
7					181,721	890,939	6,179.9
8		1,000			50,170	1,146,752.1	2,874.9
9					76,692	1,008,769	
10					31,743	1,141,890	
11					44,021	989,711	
12					44,030	998,709	9,286.94
13					33,810	1,033,665	10,838
14					380,165	1,022,796	23,567.8
15					35,324	647,039	44,811.2
16	5,833	11,667			19,816	129,584	
17	24,400	38,400		300	179,600	276,200	800
18	8,775	12,300	†900	600	71,375	60,850	900
Disposal Works at Lockport		573		88.4		10,111	
Van Buren Street App. Span, Chicago River							
Taylor Street Bridge over Chicago River	900				900		
C. T. T. R. R. Co.'s Bridge over Chicago River							
Southwest Boulevard Bridge over Main Channel, Sec. O					9,873.5		
Panhandle Bridge over Main Channel, Sec. O	7,800				11,000		
C., M. & N. R. R. Co.'s Bridge over Main Channel, Sec. N					17,849		
C., M. & N. R. R. Co.'s Bridge over Kedzie Avenue, Sec. N					2,869		
Kedzie Avenue Bridge over Main Channel, Sec. N					7,101		
A., T. & S. F. Ry. Co.'s Bridge over Main Channel, Sec. N					7,445		
Belt Railway Co.'s Bridge over Main Channel, Sec K							
A., T. & S. F. Ry. Co.'s Bridge over Main Channel, Sec. G					85,253		
Lyons-Summit Road Bridge over Desplaines River, Sec. E							
Lyons-Summit Road Bridge over Main Channel, Sec. F					2,270		
C., T. T. R. R. Co.'s Bridge over Main Channel, Sec. E					4,748.1		
C., T. T. R.R. Co.'s Br. over Desplaines River, Sec. E	*1,462			234			
Willow Springs Highway Bridge over Main Channel, Sec. 1					2,084		
A., T. & S. F. Ry. Co.'s Bridge over Main Channel, Sec. 8		400			98,315	1,780	
Lemont Highway Bridge over Main Channel, Sec. 8					2,006	202	
Romeo Highway Bridge over Main Channel, Sec. 12		800			1,170	2,130	
Lockport Highway Bridge over Main Channel, Sec. 16						526	

STRUCTION CONTRACTS SEPTEMBER 1, 1899.

DATE.				ESTIMATED REMAINING TO BE DONE.				PERCENTAGE COMPLETED.				
River Diversion.		Piles. Lineal Feet	Masonry and Concr't. Cu. Yds.	*Main Channel.*				Main Channel Excava'n	River Divers'n.	Ret. Wall	Masonry and Concr't	Piles.
Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds.			Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds	Piles & R. W.	Mas'y & Concr't Cu. Yds					
.....	.....	70,700	5,717	138,700	.....	6,018	1,612	86.74	.....	....	78.00	92.15
.....	.....	.....	.....	140,565	.....	.....	.....	92.29	.....	....	.....	.....
.....	.....	.....	.....	157,383	.....	.....	.....	85.89	.....	....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	....	.....	.....
.....	.....	.....	.....	4,159	.....	.....	.....	99.62	.....	...	.....	.....
.....	.....	.....	.....	12,131	.....	.....	.....	98.97	.....	....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	....	.....	.....
.....	.....	.....	.....	48,888	.....	.....	.....	95.53	.....	....	.....	.....
.....	.....	.....	.....	646	.....	.....	.....	99.95	.....	....	.....	.....
179,447	.....	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
95,718	.....	.....	.....	94	6	.....	.....	99.99	100	....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	....	.....	.....
170,788	.....	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
212,486	.....	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
359,353	.....	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
174,555	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
119,234	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	100	.....	.....
106,808	17,857	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
12,256	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
118,647	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
97,917	43,102	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
57,902	99,399	.....	.....	.....	14,282	.....	.....	98.82	100	100	.....	.....
40,763	16,873	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
30,313	58,276	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
12,699	15,677	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
11,739	7,475	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	100	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	100	.....	.....
619	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
.....	.....	.....	.....	.....	35,466	.....	.....	80.81	.....	....	.....	.....
.....	.....	.....	700	107,870	52,360	.....	.....	73.99	.....	100	100	.....
.....	.....	.....	3,698	20,425	81,280	‡5,400	.....	56.52	.....	14.29	100	.....
.....	.....	.....	11,454.1	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	.....	.....	2,800	.....	.....	784	00	.....	....	00	.....
.....	.....	.....	.....	600	.....	10,840	1,041	60	.....	....	00	00
.....	.....	.....	.....	12,000	.....	44,840	8,040	00	.....	....	00	00
.....	.....	10,813	4,421.94	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	.....	.....	4,200	.....	29,600	14,360	72.37	.....	....	00	00
.....	.....	5,948	4,236.77	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	.....	595.69	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	.....	2,886.84	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	4,544	2,489.36	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	.....	.....	8,100	.....	7,070	3,795	00	.....	....	00	00
.....	.....	5,748	2,929.03	.....	.....	.....	.....	100	.....	....	100	100
5,924	.....	.....	793.3	.....	.....	.....	.....	.....	100	....	100	.....
.....	.....	1,501	2,087.2	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	1,166.5	2,162.79	.....	.....	.....	.....	100	.....	....	100	100
2,262	.....	.....	436	.....	.....	1,000	216	.....	100	....	66.87	00
.....	.....	400	598.6	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	.....	817.07	29,785	.....	.....	.....	77.07	.....	....	100	.....
.....	.....	.....	433.36	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	.....	1,181.6	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	.....	449.45	.....	.....	.....	.....	100	.....	....	100	.....

QUANTITIES— STATEMENT SHOWING CONDITION OF CON

DESIGNATION.	AMOUNT DONE DURING AUGUST, 1899.				TOTAL DONE TO		
	Main Channel.				*Main Channel.*		
	Glacial Drift. Cu. Yds	Solid Rock. Cu. Yds	Piles & R.W.	Masonry and Concr't. Cu. Yds.	Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds.	Retaining Wall. Cu. Yds.
Wire Mills Road Bridge over Main Channel, Sec. 16	.....	.....	.....	.....	.....	603	.....
E., J. & E. R. R. Co.'s Bridge, between Secs. 16 and 17	.....	.....	.....	.....	.....	.....	.....
Cass Street Bridge over Main Channel, Sec. 18	.....	.....	.....	.....	.....	.....	.....
Jefferson Street Bridge, over Main Channel, Sec. 18	.....	.....	.....	.....	.....	.....	.....
C., R. I. & P. R. R. Co.'s Bridge, Sec. 18	.....	1,000	.....	.....	.....	1,300	.....
Totals	175,308	70,718	8,500	3972.4	27,663,442.6	12,713,797.1	374,649.54

* 1,462—River Diversion.
† 900—Retaining Wall.
‡ 5,400—Retaining Wall.

STRUCTION CONTRACTS SEPTEMBER 1, 1899—*Continued.*

DATE.				ESTIMATED REMAINING TO BE DONE				PERCENTAGE COMPLETED.				
River Diversion.		Piles. Lineal Feet.	Masonry and Concr't. Cu. Yds.	*Main Channel.*				Main Channel Excava'n	River Divers'n.	Ret. Wall	Masonry and Concr't	Piles.
Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds.			Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds	Piles & R. W.	Mas'y & Concr't Cu. Yds.					
.....	.....	.....	566.57	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	.....	1,041.84	.....	.....	.....	.....	.....	.....	....	100	.....
.....	.....	.....	.....	2,850	52	.....	696	00	.....	....	00	.....
.....	.....	.....	.....	3,000	104	.....	1,242	00	.....	....	00	.....
.....	.....	.....	.....	.....	1,900	.....	1,326	14.62	.....	....	00	.....
1,809,523	258,659	100,820.5	49,649 51	694,196	212,450	99,368 ‡5,400	33,112	97.80	100	98.6	59.99	50.36

VALUES— STATEMENT SHOWING CONDITION OF

Designation.	Amount earned during August, 1899.				Amount earned to date.			
	Main Channel.	Bridges.	General.	Total.	Main Channel.	River Diversion.	Bridges.	General.
Chicago River Imp'ment	$46,556 57			$46,556 57	$ 384,745 06			
O	13,044 78	$10,187 52		23,232 30	373,479 34		$ 91,570 31	
N	7,106 54			7,106 54	226,482 63		3,525 02	
M.	1,886 31			1,886 31	160,070 52			
L					217,287 06			
K	7,061 45	3,249 73		10,311 18	297,981 64		7,512 11	
I.					239,846 00			
H	3,160 71			3,160 71	304,734 12			
G	3,749 20			3,749 20	398,638 40			
F					341,404 40	75,627 73		
E	5,134 99	217 36		5,352 35	752,932 27	29,091 91	15,673 34	260 0
D					592,039 29	2,880 54		
C.					443,342 59	40,135 18		781 3
B					438,986 42	59,451 34		150 3
A					801,584 08	115,741 73		
1.		—75 00		—75 00	1,210,660 37	143,908 29	1,912 00	30 0
2.					877,695 00	63,190 86		90 0
3.					840,952 93	338 42		
4.					975,248 98	83,304 43		85 2
5.					749,207 28	6,653 64		
6.					687,835 61	55,911 37		
7.					722,544 74	66,193 19		8,738 0
8.	667 83			667 83	889,817 26	89,683 90	19,853 89	12,580 0
9.					794,338 28	23,573 72	1,012 30	
10.					921,454 79	78,729 58		8,952 2
11.					797,717 50	43,854 42		
12.					837,660 69	21,768 52	1,136 87	
13.					819,388 19			
14					931,457 10			
15.					551,915 85	117 61		
16.	6,979 11			6,979 11	59,719 66		1,500 00	
17.	44,228 47			44,228 47	286,399 18			
18.	40,886 79	6,000 00		46,886 79	184,089 93		9,556 42	
Disposal Wks. at Lockp't	7,307 65			7,307 65	261,750 67			
Repairing I. & M. Canal.								18,032 6
Van Buren St. Approach Span, Chicago River...							4,050 00	
Taylor St. Br. over Chicago River		4,253 48		4,253 48			16,920 14	
C. T. T. R. R. Co.'s Br. over Chicago River....		9,841 69		9,841 69			55,746 27	
S. W. Blvd. Br., over M. C., Sec. O		46 62		46 62			149,962 42	
Pan Handle Br., over M. C., Sec. O		27,239 25		27,239 25			94,447 34	
C.,M. & N. R. R. Co.'s Br., over M. C., Sec. N....							160,134 67	
C.,M. & N. R. R. Co.'s Br., over Kedzie Av., Sec. N							14,515 47	
Kedzie Av. Br., over M. C., Sec. N							43,118 58	
A., T. & S. F. Ry. Co.'s Br., over M. C., Sec. N.		398 88		398 88			79,900 78	
Belt Ry. Br. over M. C., Sec. K								
A., T. & S. F. Ry. Co.'s Br., over M. C., Sec. G.		2,233 88		2,233 88			114,305 72	
A., T. & S. F. Ry. Co.'s Br., over D. R., Sec. F.							19,210 73	
Lyons-Summit Road Br., over D. R., Sec. E.....							13,171 72	
Lyons-Summit Road Br., over M. C., Sec. F.....		50 20		50 20			41,148 77	
C. T. T. R. R. Co.'s Br., over M. C., Sec. E.....							50,682 75	
C. T. T. R. R. Co.'s Br., over D. R., Sec. E.....		4,057 60		4,057 60			9,721 30	
Willow Spgs. Highway Br., over M. C., Sec. 1							22,968 52	
A., T. & S. F. Ry. Co.'s Br. and Stephen Street Subway over M. C., Sec. 8		1,602 19		1,602 19			107,087 93	
A., T. & S. F. Ry. Co.'s Br., over D. R., Sec. 8.							23,275 07	
Lemont Highway Br., over M. C., Sec. 8.. ...							21,227 39	

CONSTRUCTION CONTRACTS, SEPTEMBER 1, 1899.

Total.	Amount Paid to Date.	REMAINING TO BE EARNED.			REMAINING TO BE PAID ON VOUCHERS.		
		Main Channel.	Bridges.	Total.	Retained Percentages.	Unpaid Vouchers.	Total.
$ 384,745 06	$ 317,045 03	$ 137,230 86	.....	$ 137,230 86	$ 28,498 19	$ 39,201 84	$ 67,700 03
465,049 65	454,418 75	8,665 87	.....	8,665 87	5,797 95	4,832 95	10,630 90
230,007 65	214,196 85	30,511 29	.....	30,511 29	12,498 22	3,312 58	15,810 80
160,070 52	160,070 52	.....	.....	.....	.....	.....	.....
217,287 06	217,287 06	2,287 45	.....	2,287 45	.....	.....	.....
305,498 75	300,474 85	6,672 05	.....	6,672 05	2,913 30	2,105 60	5,018 90
289,846 00	289,846 00	.....	.....	.....	.....	.....	.....
304,734 12	304,241 41	14,177 52	.....	14,177 52	.....	492 71	492 71
398,638 40	396,149 20	64 68	.....	64 68	.....	2,489 20	2,489 20
417,082 13	375,082 00	.....	.....	.....	34,103 38	7,846 75	41,950 13
797,957 52	691,551 33	29 58	.....	29 58	97,406 83	8,999 36	106,406 19
594,919 83	594,919 83	.....	.....	.....	.....	.....	.....
484,259 40	484,259 40	.....	.....	.....	.....	.....	.....
498,587 76	498,587 76	.....	.....	.....	.....	.....	.....
917,325 81	917,325 81	.....	.....	.....	.....	.....	.....
1,356,510 66	1,349,615 00	.....	.....	.....	6,179 83	715 83	6,895 66
940,975 86	940,975 86	.....	.....	.....	.....	.....	.....
841,291 35	841,291 35	.....	.....	.....	.....	.....	.....
1,058,638 66	1,058,638 66	.....	.....	.....	.....	.....	.....
755,860 92	755,860 9	.....	.....	.....	.....	.....	.....
743,746 98	743,746 98	.....	.....	.....	.....	.....	.....
797,495 93	797,495 93	.....	.....	.....	.....	.....	.....
1,001,935 11	1,000,950 74	8,997 66	.....	8,997 66	433 12	551 25	984 37
819,424 30	819,424 30	.....	.....	.....	.....	.....	.....
1,009,136 70	1,009,136 70	.....	.....	.....	.....	.....	.....
841,571 92	841,571 92	.....	.....	.....	.....	.....	.....
860,566 08	860,566 08	.....	.....	.....	.....	.....	.....
819,388 19	819,388 19	.....	.....	.....	.....	.....	.....
931,457 10	931,457 10	.....	.....	.....	.....	.....	.....
552,033 46	552,033 46	.....	.....	.....	.....	.....	.....
61,219 66	47,966 97	6,103 50	.....	6,103 50	7,280 82	5,971 87	13,252 69
286,399 18	223,108 67	14,033 85	.....	14,033 85	26,668 16	36,622 35	63,290 51
198,646 35	145,001 24	224,780 00	.....	224,780 00	23,146 39	25,498 72	48,645 11
261,750 67	261,750 67	.....	.....	.....	.....	.....	.....
18,052 85	18,052 85	.....	.....	.....	.....	.....	.....
4,050 00	4,050 00	.....	15,445 87	15,445 87	.....	.....	.....
16,920 14	16,388 46	.....	66,786 72	66,786 72	531 68	.....	531 68
55,746 27	55,746 27	.....	283,722 40	283,722 40	.....	.....	.....
149,962 42	145,687 58	.....	6,000 00	6,000 00	4,228 22	46 62	4,274 84
94,447 34	72,413 34	.....	451,630 24	451,630 24	1,645 00	20,389 00	22,034 00
160,134 67	160,134 67	.....	.....	.....	.....	.....	.....
14,515 47	14,515 47	.....	.....	.....	.....	.....	.....
43,118 58	43,118 58	.....	.....	.....	.....	.....	.....
79,900 78	79,900 78	.....	.....	.....	.....	.....	.....
.....	.....	.....	167,292 50	167,292 50	.....	.....	.....
114,305 72	114,305 72	.....	.....	.....	.....	.....	.....
19,210 73	19,210 73	.....	.....	.....	.....	.....	.....
13,171 72	12,999 65	.....	.....	.....	172 07	.....	172 07
41,148 77	41,148 77	.....	.....	.....	.....	.....	.....
50,682 75	50,682 75	.....	.....	.....	.....	.....	.....
9,723 30	7,590 53	.....	8,448 45	8,448 45	658 49	1,474 28	2,132 77
22,968 52	22,968 52	.....	.....	.....	.....	.....	.....
107,087 93	72,186 45	.....	21,000 00	21,000 00	21,731 17	13,170 31	34,901 48
23,275 07	23,275 07	.....	.....	.....	.....	.....	.....
21,227 39	21,227 39	.....	.....	.....	.....	.....	.....

VALUES— STATEMENT SHOWING CONDITION OF

DESIGNATION.	AMOUNT EARNED DURING AUGUST, 1899.				AMOUNT EARNED TO DATE.			
	Main Channel	Bridges.	General.	Total.	Main Channel.	River Diversion.	Bridges.	General.
Lemont Highway Br., over D. R., Sec. 8	.....	.....	.....	.....	.....	.....	$ 22,329 89	.....
Western Stone Co.'s Br., over D. R., Sec. 10	.....	.....	.....	.....	.....	.....	15,983 63	.....
Romeo Highway Br. over M. C., Sec. 12	.....	$ 1,392 59	.....	$ 1,392 59	.....	.....	29,731 14	.....
Lockport Highway Br. over M. C., Sec. 16	.....	1,293 00	.....	1,293 00	.....	.....	16,596 68	.....
Wire Mills Rd. Br., over M. C., Sec. 16	.....	5,066 75	.....	5,066 75	.....	.....	15,125 03	.....
E. J. & E. R. R. Co.'s Br., bet. Secs. 16 and 17.	.....	.....	.....	.....	.....	.....	41,984 62	.....
Cass St. Br. over M. C., Sec. 18	.....	.....	.....	.....	.....	.....	.....	.....
Jefferson St. Br. over M. C., Sec. 18	.....	.....	.....	.....	.....	.....	.....	.....
C. R. I. & P. R. R. Bridge over M. C., Sec. 18	.....	.....	.....	.....	.....	.....	3,250 00	.....
Crib work at Joliet	.....	.....	$1,167 66	1,167 66	.....	.....	.....	$23,307 56
Totals	$187,770 40	$77,055 74	$1,167 66	$265,993 80	$ 19,423,907 83	$1,000,156 38	$1,339,850 82	$73,047 98

CONSTRUCTION CONTRACTS. SEPTEMBER 1, 1899—*Continued*.

Total.	Amount Paid to Date.	REMAINING TO BE EARNED.			REMAINING TO BE PAID ON VOUCHERS.		
		Main Channel.	Bridges.	Total.	Retained Percentages.	Unpaid Vouchers.	Total.
$ 22,329 89	$ 22,329 89	.....	.....	.....	.....	.....	.....
15,983 63	15,983 63	.....	.....	.....	.....	.....	.....
29,731 14	26,911 33	.....	$ 200 00	200 00	$ 1,645 54	$ 1,174 27	$ 2,819 81
16,596 68	15,216 18	.....	1,000 00	1,000 00	151 62	1,228 88	1,380 50
15,125 03	10,058 28	.....	1,000 00	$ 1,000 00	177 19	4,889 56	5,066 75
41,984 62	41,984 62	.....	.....	.....	.....	.....	.....
.....	.....	.....	38,265 75	38,265 75	.....	.....	.....
.....	.....	.....	45,627 25	45,627 25	.....	.....	.....
3,250 00	2,843 75	.....	30,078 00	30,078 00	406 25	.....	406 25
33,307 56	33,307 56	.....	.....	.....	.....	.....	.....
$ 21,836,962 71	$ 21,379,675 36	$453,554 31	$1,136,497 18	$1,590,051 49	$276,273 42	$181,013 93	$457,287 35

GENERAL ACCOUNT.

*Dunham Towing and Wrecking Company (fuel, fittings, repairs, etc.)	$ 631 98	
*John F. Higgins (printing proceedings, September, 1899)	303 49	
		$ 935 47

MAINTENANCE ACCOUNT.

Isham Randolph (expense)		$ 9 50

*CONSTRUCTION ACCOUNT.

Gahan & Byrne (Section H, September 30, 1899)	$ 2,583 90	
Christie & Lowe (Section K, September 30, 1899)	752 47	
The Toledo Bridge Company (Section K, Belt Railway Bridge)	1,092 88	
Hayes Bros. et al. (Section N, September 30, 1899)	2,189 60	
Hayes Bros. et al. (Section O, September 30, 1899)	535 60	
McArthur Bros. Company (Section O, eight-track bridge)	26,301 27	
McArthur Bros. Company (Section O, eight-track bridge)	17,018 18	
Thomas Moulding Company (Section O, eight-track bridge)	3,004 75	
Lydon & Drews Company (By-Pass, Chicago River)	7,824 25	
Lydon & Drews Company (By-pass, Chicago River)	4,248 95	
Halvorson, Richards & Co. (Section E, removing dam)	493 10	
Halvorson, Richards & Co. (Section E, Summit-Lyons road)	44 41	
Heldmaier & Neu (Section 17, building dam, etc.)	330 20	
Hayes Bros. (Section M, pumping plant)	134 55	
Griffiths & McDermott (By-Pass roadway)	675 84	
Isham Randolph (painting Regulating Works)	412 00	
Pennsylvania Company (switching and demurrage)	778 00	
Peter Petersen (cement warehouse)	110 00	
Peter Petersen (storing old steel, etc.)	160 52	
Peter O'Laughlan (filling for By-Pass)	15 75	
		$68,706 22
Grand total		$70,327 63

* To be paid by warrants, with interest coupons attached, drawn against the Tax Levy for 1899.

Mr. Carter, seconded by Mr. Wenter, moved that the vouchers, as read and shown above, be approved and ordered paid.

On roll call the vote stood: Yeas—Messrs. Boldenweck, Carter, Eckhart (*except as to voucher in favor of Dunham Towing & Wrecking Company for $631.98, on which he voted nay*), Jones (*except as to vouchers in favor of the Canal Commissioners for $552.00, John F. Higgins for $303.49 and Thomas Moulding Company for $3,004.75, on all of which he voted nay*), Kelly, Mallette, Smyth and Wenter—eight (*except as above stated*). Nays—none (*except as above stated*).

Upon this result the President declared the motion carried.

Before voting Mr. Mallette made the following explanation, which he desired to have recorded in the proceedings: "I vote aye on all the vouchers, but I want to explain my vote on the voucher in favor of Dunham Towing and Wrecking Company. I have heretofore refused to vote for anything in connection with the boat, but, as long as we have purchased the boat and incurred the expense, I believe it is our duty to pay the bill."

REQUISITIONS.

The Clerk presented the following requisitions:

No. 594, Engineering Department (quarterly supplies) $364 17
No. 831, Law Department (stationery) 18 00

Mr. Kelly, seconded by Mr. Smyth, moved that Requisitions Nos. 594 and 831, as read and shown above, be allowed.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—eight. Nays—none.

Upon this result the President declared the motion carried.

APPROVAL OF BOND ON CONTRACT FOR SUPERSTRUCTURE FOR TOW-PATH BRIDGE CROSSING THE RIVER DIVERSION CHANNEL ON SECTION 17.

Mr. Carter, Chairman, presented, and the Clerk read, a report from the Committee on Finance in reference to the approval of the bond of the Joliet Bridge and Iron Company on the contract for the superstructure for the Tow-path Bridge crossing the River Diversion Channel on Section 17, the report being accompanied by the said contract and bond in duplicate, and recommending that said bond be approved.

Mr. Carter, seconded by Mr. Eckhart, moved that the report be adopted and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—eight. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT.

"CHICAGO, Sept. 29, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Your Committee on Finance, to whom was referred, at the meeting of the Board of Trustees held on the 26th day of September, A. D. 1899 (page 6054 of the Proceedings), the approval of the bond of The Joliet Bridge and Iron Company, desires to report as follows:

The Committee has examined said bond and finds that the same is executed in proper form, and that the surety thereon, The City Trust, Safe Deposit and Surety Company of Philadelphia, is sufficient. The penalty in said bond is four thousand ($4,000) dollars.

The Committee, therefore, recommends that said bond be approved by the Board of Trustees.

Respectfully submitted,

(Signed) Z. R. CARTER,
Chairman.
B. A. ECKHART,
FRANK WENTER,
THOMAS KELLY,
ALEX. J. JONES,
Committee on Finance."

(Accompanied by contract and bond in duplicate.)

REPORT IN REFERENCE TO BIDS ON ASPHALT FILLING FOR A., T. & S. F. BRIDGE AT LEMONT.

Mr. Smyth, Chairman, presented, and the Clerk read, a report from the Committee on Engineering with reference to, and accompanied by, the bids submitted for the asphalt filling between the counter-weights of the A., T. & S. F. Bridge at Lemont; the report setting forth that the Chief Engineer has been directed by the Committee to have the asphalt filling done in the best possible manner and asking that its action be ratified.

Mr. Smyth, seconded by Mr. Kelly, moved that the report be adopted, and the recommendation contained therein concurred in.

Mr. Jones presented a minority report in regard to the same matter and moved that it be substituted for the majority report.

On roll-call on the motion of Mr. Jones the vote stood: Yeas — Mr Jones—one. Nays—Messrs. Boldenweck, Carter, Eckhart, Kelly, Mallette, Smyth and Wenter—seven.

Upon this result the President declared the motion to substitute lost.

Mr. Jones, seconded by Mr. Carter, then moved to amend the majority report by adding the words, "in compliance with law," so that it shall read, "done in the best possible manner in compliance with law."

Mr. Smyth accepted the amendment.

On roll-call, on the motion of Mr. Jones to amend, the vote stood: Yeas—Messrs. Carter, Jones and Mallette—three. Nays—Messrs. Boldenweck, Kelly, Eckhart, Smyth and Wenter—five.

Upon this result the President declared the motion to amend lost.

On roll-call on the original motion of Mr. Smyth for the adoption of the majority report, the vote stood: Yeas—Messrs. Boldenweck, Carter, Eckhart, Kelly, Mallette, Smyth and Wenter—seven. Nays—Mr. Jones—one.

Upon this result the President declared the motion carried and the majority report adopted.

The following is

THE MAJORITY REPORT:

"CHICAGO, October 4, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Your Committee on En-

gineering desires to report that it has carefully considered the bids submitted for the asphalt filling between the counterweights of the Atchison, Topeka & Santa Fe Railroad bridge at Lemont; and that your Committee has directed the Chief Engineer of the District to have the asphalt filling done in the best possible manner.

Your Committee, therefore, respectfully asks that its action in this regard be ratified by your Honorable Body.

Respectfully submitted,

(Signed) THOMAS A. SMYTH,
Chairman.
J. P. MALLETTE,
B. A. ECKHART,
THOMAS KELLY,
FRANK WENTER,
WM. BOLDENWECK,
Committee on Engineering."

(Three enclosures.)

The following is

THE MINORITY REPORT:

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—The action proposed, in authorizing the Chief Engineer to have this work done under the bids submitted, is a defiance of law, and the undersigned protests against this flagrant disregard of the statute. The law of the Sanitary District provides as follows: "All contracts for work to be done by such municipality, the expense of which will exceed $500, shall be let to the lowest responsible bidder therefor, upon not less than sixty days public notice of the terms and conditions upon which the contract is to be let having been given by publication in a newspaper of general circulation published in said district."

All the propositions submitted by the majority report exceed $500.00; and no advertisement of sixty days', or any other period, having been made for this work, no contract let hereunder will be valid and any taxpayer may at any time enjoin the payment of any money earned thereunder.

(Signed) ALEX. J. JONES.

REPORT ON RESOLUTION IN REFERENCE TO DEEP WATER-WAY CONVENTION.

Mr. Wenter, Chairman, presented and the Clerk read, a report from the Joint Committee on Federal Relations and Engineering on the resolution in reference to the Deep Waterway Convention, presented and referred to that Committee at the meeting held September 20, 1899, (page 6033 of the Proceedings.)

Mr. Wenter, seconded by Mr. Jones, moved that the report be adopted and that the President be directed to have transmitted to the Deep Waterway Convention, to be held at Peoria, on October 10th and 11th, 1899, one thousand copies of the report.

On roll call the vote stood: Yeas—Messrs. Boldenweck, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—eight. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, October 4, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Your Joint Committee on Federal Relations and Engineering, to whom was referred the resolution on page 6033 of the Proceedings, in reference to the Deep Waterway Convention to be held at the City of Peoria, October 10th and 11th, 1899, transmits herewith to your Honorable Board the following report:

To the President and Members of the Deep Waterway Convention, Peoria, Ill:

GENTLEMEN—While the Board of Trustees of the Sanitary District of Chicago has not officially been invited to be represented at the Deep Waterway Convention, to be held on October 10th and 11th, 1899, in your city, each individual Trustee has received an invitation to participate in your deliberations. This being the case, we, as the Board of Trustees of the Sanitary District of Chicago, take cognizance of said Convention, as we believe that, if the Deep Waterway from the Lakes to the Mississippi River becomes a matter of fact, the Sanitary District of Chicago will have contributed towards the consumation of said project the lion's share thereof. As an official body, representing the Sanitary District of Chicago, we take especial pride to be in a position, at this time, to place before you facts and figures that clearly demonstrate that Chicago is in a position to furnish within a very short time the main link of the

Deep Waterway, extending over twenty-eight miles through the most difficult territory through which this waterway is to be completed as a whole.

The Canal proper is 160 feet wide in the solid rock, extending over fourteen and ninety-five one-hundredths miles. Through the earth and hardpan its length is thirteen and one-tenth miles, varying in width all the way from 198 to 290 feet at the water edge; having a universal depth throughout its entire length of the approximate twenty-eight miles of not less than twenty-two feet of water. The Canal of twenty-eight miles is exclusive of the Chicago River proper.

The Canal is spanned by the finest and the most modern movable type of bridges that ingenuity could devise, having thereby given full consideration to the navigable feature of the Canal.

Neither the State of Illinois nor the the United States have contributed one cent towards the building of this gigantic piece of work; the entire expense being in the neighborhood of $33,000,000.00, being borne by the tax payers of the Sanitary District of Chicago, while the great canals of the world that were finished in recent years, such as the Manchester and the Baltic Ship Canal, were undertaken and either wholly or partly paid for by the respective countries in which they were built, England and Germany.

As to the size of the Chicago Canal, it can be stated that it ranks in size with the largest canals of the world, and it has a greater cross-section than either the Suez, the Manchester or the Baltic Ship Canal.

We, as Trustees of the Sanitary District of Chicago, are very deeply concerned in the furtherance of the project to extend a Deep Waterway from Lockport, as far as we have built the same, to the Mississippi River; and it certainly is a great satisfaction on the part of the citizens of Chicago to know that the contribution made by the Sanitary District of Chicago towards a Deep Waterway is going to be the most gigantic and grandest piece of construction of the entire length of the Deep Waterway; and, through the construction of this mighty Canal by the Sanitary District of Chicago, it will make it possible now to receive assistance from the National Government, owing to the fact that, by a clear demonstration, for the amount of money expended the accomplishment is such that the missing links or, in other words, the expense from Lockport to the Mississippi River can easily be ascertained and the expenditure will be but a bagatelle for the National Government when one city itself furnishes the most difficult portion of the Deep Waterway Canal in construction as well as the greater expense.

We trust your deliberations will be such as to bring about harmonious action in furthering the project in view, for united action is essential on the part of the people of the Illinois Valley and the City of Chicago in order to be able to enlist the aid and support of the people, and their representatives, of the neighboring states, when the project of a Deep Waterway from the Lakes to the Mississippi River will be formally presented to Congress. As the Board of Trustees of the Sanitary District of Chicago, we would recommend to your Convention favorable action, namely: To call a convention in Chicago sometime in the early part of next year, 1900, inviting not only representatives from this State, but including members of Congress, United States Senators and such other representatives from the adjoining states, such as Iowa, Wisconsin, Indiana, Missouri, Michigan, Kansas, Nebraska, Minnesota, Mississippi, Louisiana, Tennessee, etc., and to make said convention representative of the great West and South. While said convention meets here, the Canal can be inspected and nothing but good can be derived therefrom.

Respectfully submitted,

(Signed) FRANK WENTER,
Chairman.

B. A. ECKHART,
Z. R. CARTER,
J. P. MALLETTE,
JOS. C. BRADEN,
WM. BOLDENWECK,
THOMAS A. SMYTH,
THOMAS KELLY,
ALEX. J. JONES,

Joint Committee on Federal Relations and Engineering."

CLOSING OF OFFICES DURING THE FALL FESTIVAL.

Mr. Jones, seconded by Mr. Mallette, moved that the President be authorized, under the direction of the Committee on Engineering, to close the offices of the District on such days of next week as may

be deemed advisable in deference to the Fall Festival and the Deep Waterway Convention, and to postpone the regular weekly meeting of the Board from Wednesday until such later day in the week as may be deemed proper.

The motion prevailed unanimously and it was so ordered.

ADJOURNMENT.

On motion of Mr. Eckhart, seconded by Mr. Smyth, the Board then adjourned.

Joseph F. Haas

Clerk.

PROCEEDINGS

—OF THE—

BOARD OF TRUSTEES

—OF THE—

SANITARY DISTRICT OF CHICAGO.

OCTOBER 12, 1899.

OFFICIAL RECORD

Published by authority of the Board of Trustees of the Sanitary District of Chicago.

*REGULAR MEETING.

The four hundred and fifty-eighth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Thursday, October 12, 1899, at 2 o'clock P. M., as postponed in accordance with the action of the Board at the meeting held October 4, 1899 (page 6061 of the Proceedings).

*NOTE—On Wednesday, October 11, 1899, no meeting was held, postponement having been made in accordance with the action of the Board at the meeting held October 4, 1899.

On roll-call Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—nine members, were present.

President Boldenweck then called the Board to order.

MINUTES.

The minutes of the regular meeting held October 4, 1899, were approved, as printed, on motion of Mr. Kelly, seconded by Mr. Mallette.

VOUCHERS.

The Clerk presented the following vouchers:

ENGINEERING DEPARTMENT.

R. Seelig (flag poles)	$ 2 70
Pearson Brothers (blue prints)	4 41
Robert W. Hunt & Co. (sieves)	5 55

John F. Higgins (printing)	$ 7 75	
P. F. Pettibone & Co. (printing)	6 00	
Western Camera Manufacturing Company (photo supplies)	6 00	
Henry Gebhardt (repairs)	4 76	
Hans Isak (guage reading, Sept. 1, 1899)	10 00	
Fairbanks, Morse & Co. (repairing cement molds)	21 00	
The Chicago Towel Supply Company (toweling)	32 45	
Samuel Hanks ice)	39 50	
J. H. Alexander (rent, Lockport, Sept., 1899)	17 00	
Isham Randolph (postage stamps)	40 00	
Eugene Dietzgen & Co. (blue prints)	35 04	
Burke & James (photo supplies)	39 35	
W. M. Hughes (expense)	28 38	
J. S. Hull (expense)	37 20	
*Donald Fraser (inspecting bridges)	57 72	
*G. M. Wisner (expense)	77 75	
*W. T. Keating (expense)	80 17	
*H. B. Alexander (expense)	69 57	
		$ 622 30

CLERICAL DEPARTMENT.

A. P. Little (paper)	$ 4 85	
Thayer & Jackson Stationery Company (stationery)	6 11	
The Typewriter Inspection Company (repairs)	12 00	
The Chicago Towel Supply Company (toweling)	7 50	
Samuel L. Hanks (ice)	15 00	
		$ 45 46

LAW DEPARTMENT.

The Chicago Towel Supply Company (toweling)	$ 4 50	
Samuel L. Hanks (ice)	7 50	
E. B. Myers & Co. (law books)	4 00	
Edward Thompson & Co. (law books)	6 00	
James D. Cockcroft (law books)	12 00	
Elizabeth H. Ryan (typewriting)	17 40	
Goes Lithographing Company (letter heads)	20 00	
Edward Wilmann (extra service)	27 65	
The Joliet Times (advertising)	35 00	
*John S. Runnells, (services general counsel, Sept. 1899)	416 67	
*The Will County Abstract Company (services)	132 00	
*John W. Nadelhoffer (expense)	164 01	
*Charles C. Gilbert (expense)	573 21	
*Hopkins, Thatcher & Dolph (services	674 00	
		$ 2,093 94

GENERAL ACCOUNT.

Henry Gebhardt	$ 3 75	
Van Natta's laundry	15 42	
Cameron, Amberg & Co.	9 00	
Wagner Bros.	20 00	
Maloney & McFadden	20 40	
Charles Werner's livery	40 00	
*Fred Harvey	50 00	
*Security Deposit Company	498 33	
*Geo. W. Adelman	128 00	
		$ 784 0

POLICE DEPARTMENT.

The Ryan & Hart Company	$ 6 25	
Mrs. A. Hartwig	4 00	
Mrs. Bridget Lambert	12 00	
D. C. McCarthy	7 00	
*E. J. Coen	63 15	
		$ 92 40

MAINTENANCE ACCOUNT.

Heggie Bros	$ 4 10	
Chicago Engineer Supply Company	10 28	
*Illinois Oil Station	69 50	
*Dearborn Drug and Chemical Works	82 20	
*Weaver Coal Company	153 55	
*H. B. Alexander	31 97	
		$ 401 60

*CONSTRUCTION ACCOUNT.

Sackley & Peterson (Sec. 8, subway)	$ 1,849 75	
Mason, Hoge, King & Co. (Sec. 8, railroad embankment)	2,625 00	
Mason, Hoge, King & Co. (Sec. 8, subway)	176 80	
Hayes Bros. (Sec. 16, Oct. 1, 1899)	5,596 42	
Heldmaier & Neu (Sec. 17, Oct. 1, 1899)	17,587 50	
Gahan & Byrne (Sec. 18, Oct. 1, 1899)	20,015 53	
The J. G. Wagner Company (Jefferson Street Bridge)	1,531 25	
The J. G. Wagner Company (Jefferson Street Bridge)	811 48	
The J. G. Wagner Company (Jefferson Street Bridge)	931 55	
Chicago Bridge and Iron Company (Taylor Street Bridge)	3,696 91	
The Pennsylvania Steel Company (C. T. T. R. R. Bridge)	3,948 00	
Griffiths & McDermott (By-pass roadway)	923 74	
Illinois Central Railroad Company, lessee (track deviation)	4,225 90	
The A., T. & S. F. Ry. Co. (track deviation)	3,419 63	
The A., T. & S. F. Ry. Co. (track deviation)	154 79	
Chicago Junction Railway Company (trestle, etc.)	1,440 81	
C. T. T. R. R. Co. (crossings)	215 00	
C. T. T. R. R. Co. (Chicago River Bridge)	4,748 41	
C., R. I. &. P. Ry. Co. (Joliet Bridge)	287 63	
Geo. M. Huss (By-pass)	280 47	
Isham Randolph (Regulating Works)	403 00	
Isham Randolph (Regulating Works)	224 35	
Joseph F. Haas, Clerk (filling pockets)	2,553 72	
Thomas Moulding Company (cement)	384 00	
Shepard Stone Company (stone)	226 26	
Barrett Hardware Company (hardware)	134 90	
Lammert & Mann (Sec. N, pumping plant)	19 80	
Weir & Craig Manufacturing Company (Sec. N, pumping plant)	31 68	
Bowers & Reid (Sec. 12, pockets)	60 41	
Humphrey & Sons (Sec. 12, pockets)	156 73	
Heggie Bros. (Sec. O, pumps	210 24	
Hibbard, Spencer, Bartlett & Co. (Sec. O, Pan Handle Bridge)	16 50	
H. H. Hopkins (Sec. O, Pan Handle Bridge)	88 15	
Crew, Levick Company (oils)	35 93	
Advance Packing and Supply Company (sundries)	21 70	
		$ 79,033 44
Grand total		$ 83,074 04

* To be paid by warrants, with interest coupons attached, drawn against the Tax Levy for 1899.

Mr. Carter, seconded by Mr. Wenter, moved that the vouchers, as read and shown above, be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—nine. Nays—none.

Upon this result the President declared the motion carried.

REQUISITION.

The Clerk presented the following requisition:

No. 1100, General Account (paint materials).....$ 11.88

Mr. Wenter, seconded by Mr. Jones, moved that Requisition No. 1100, as read and shown above, be allowed.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette Smyth and Wenter—nine. Nays—none.

Upon this result the President declared the motion carried.

REPORT IN REFERENCE TO EXECUTION OF AGREEMENT WITH THE JOLIET BRIDGE AND IRON COMPANY FOR SUPERSTRUCTURE FOR TOW-PATH BRIDGE CROSSING RIVER DIVERSION CHANNEL ON SECTION 17.

The Clerk presented and read a report transmitting the agreement with the Joliet Bridge and Iron Company for the construction of the superstructure for the tow-path bridge crossing the River Diversion Channel on Section 17, the report setting forth that said agreement has been duly executed by the said company, and also by the President and Clerk, as authorized by the Board at the meeting held September 26, 1899 (page 6054 of the Proceedings), and a duplicate copy of same delivered to said company, and therefore recommending that said agreement be printed and placed on file.

By unanimous consent the report was ordered received and with accompanying agreement printed, and placed on file.

The following is

THE REPORT:

"CHICAGO, Oct. 12, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I herewith transmit the agreement, dated September 27, 1899, with the Joliet Bridge and Iron Company, for the construction of "the superstructure for the Tow-path bridge crossing River Diversion Channel on Section 17," the same having been duly executed by said company, and also by your President and Clerk, as authorized by the Board of Trustees at the meeting held September 26, 1899 (page 6054 of the Proceedings), and a duplicate copy of same delivered to said company, and I therefore recommend that the said agreement be printed and placed on file.

Respectfully submitted,

(Signed) JOSEPH F. HAAS,

Clerk."

The following is

THE AGREEMENT:

SANITARY DISTRICT OF CHICAGO.

Contract and specifications for superstructure for the Tow Path Bridge crossing River Diversion Channel on Contract Section 17.

THIS AGREEMENT, Made and entered into this 27th day of September, A. D. 1899, by and between the Sanitary District of Chicago, of the first part, and The Joliet Bridge & Iron Company, a corporation organized and existing under the laws of the State of Illinois, of the City of Joliet in the State of Illinois, of the second part.

A—

WITNESSETH: That the said party of the second part has covenanted, contracted and agreed, and by these presents does covenant, contract and agree with the said party of the first part, for the consideration of the payments to be made as provided for herein, to the said party of the second part by the said party of the first part, and under a penalty expressed in a bond bearing even date herewith, at his own proper cost and expense to do all the work, and to furnish all material, tools, labor and all appliances and appurtenances called for by this agreement, in the manner and under the conditions hereinafter stipulated, that are necessary to the complet doing of the work known and distinguishe by the specifications herein contained, an the plans accompanying them, as the To Path Bridge across the River Diversion Chan nel on Contract Section 17.

B—

It is further covenanted, contracted an agreed that the work shall be executed und

the direction and supervision of the Chief Engineer or other designated representative of the Sanitary District of Chicago, and his properly authorized agents, and by whose measurements and calculations the quantities and amounts of the several kinds of work performed under this contract shall be determined, and on whose inspection all work shall be accepted or condemned. The said Chief Engineer or other designated representative shall have full power to reject or condemn all materials furnished or work performed under this contract which do not fully conform to its spirit and to the terms and conditions herein expressed; and the Chief Engineer or other designated representative of the Sanitary District in charge of said work shall decide every question which may arise between the parties hereto relative to the execution thereof, and his decision shall be final and binding upon both parties.

C—

Wherever the words "Sanitary District" are used in this contract they shall be understood to mean the Sanitary District of Chicago, as represented by the Board of Trustees or their duly authorized and accredited agents.

Whenever the word "Engineer" is used herein it shall be understood to mean either the Chief Engineer of the Sanitary District of Chicago or the duly accredited expert representative of the Sanitary District.

Wherever the word "Contractor" is used herein it shall be understood to mean the person or persons, or copartnership or corporation entering into the contract as party of the second part.

The following ordinance, passed by the Board of Trustees of the Sanitary District of Chicago, June 23, 1897, is hereby made a part of this contract, and the party of the second part agrees to comply with its provisions, and in case of violation thereof to be subject to the penalties therein authorized to be imposed:

"*Be it Ordained by the Board of Trustees of the Sanitary District of Chicago:*

SECTION 1. That in the preparation of all future specifications for contracts for the construction of the Main Channel and auxiliary works, the Engineering Department shall provide that such contracts shall be executed in conformance with the law constituting eight (8) hours a legal day's work in all contracts under the Sanitary District of Chicago, and that, in the employment of labor, contractors shall be required, and specifically agree, to give preference to union labor.

SECTION 2. That all contracts hereafter executed for the works of the Sanitary District of Chicago shall contain provisions constituting eight (8) hours a legal day's work, and forbidding the employment of any employe or employes for a longer period than eight (8) hours in any twenty-four (24) hours, and that said contract shall vest specific authority in the Police Department of the Sanitary District of Chicago to exercise supervision for the enforcement of this provision, and shall provide that the Board of Trustees of the Sanitary District of Chicago shall be empowered in all cases of violation of said eight (8) hour law, to deduct and retain from any money accruing to said contractors a sum as liquidated damages at the rate of five ($5 00) dollars per hour for each employe who shall be required to work in excess of eight (8) hours per day by any contractor on said Canal."

SPECIFICATIONS.

PLANS.

1. All plans and drawings prepared by the Sanitary District of Chicago for this work, with all notes, dimensions, figures and corrections thereon, shall be considered a part of these specifications, and in the event of any discrepancy between plans and specifications the judgment of the Engineer shall be decisive thereon.

2. All shop plans required shall be made by and at the expense of the contractor, and submitted to the Engineer for approval before beginning work, and at least six (6) sets of prints of such approved plans shall be furnished the Sanitary District free of cost. No alterations of approved plans will be permitted to be made by the contractor without the written consent of the Engineer.

3. The approval of said plans by the Engineer will not relieve the contractor from the responsibility of errors thereon.

4. Plans furnished by the Sanitary District shall be carefully checked by the contractor before beginning work. Should errors be discovered, the Engineer's attention should be called to the same and corrections made, after which the contractor will be

responsible for all errors which may occur or may have occurred.

5. All such working drawings submitted shall have a uniform size of twenty-six (26) inches by forty (40) inches inside border lines, with border margin of one-half (½) inch. When submitted for approval, a complete set of such drawings shall be presented.

QUALITY OF MATERIAL.

WROUGHT IRON.

6. All iron used shall have an ultimate tensile strength of not less than 48,000 pounds per square inch, an elastic limit of at least 26,000 pounds per square inch, and an elongation of at least twenty (20) per cent in eight (8) inches, and be so ductile that when bent cold through 180 degrees, and hammered down flat on itself, it shall show no sign of fracture on convex side of curve.

STEEL.

Character.

7. All steel shall be uniform in quality and made by the open hearth process.

8. Tests shall be made upon pieces cut from the finished material and shall not be less than one-half (½) inch square in sectional area. Two pieces, one for tensile test and one for bending test, shall be furnished for each blow or cast, and so selected that each heat or furnace full of billets, blooms or slabs shall be represented by at least one test to prove the condition of the metal after reheating, rolling, etc.

Medium Steel Tests.

9. When tested in specimens as above, medium steel shall have an ultimate tensile strength of from 60,000 to 68,000 pounds per square inch, an elastic limit of not less than 36,000 pounds per square inch, shall elongate not less than twenty-five (25) per cent. in eight (8) inches, and show a reduction of area at point of fracture of not less than forty (40) per cent.

10. The test piece must also bend cold at 180 degrees around a curve whose diameter is equal to the thickness of the piece without crack or flaw on convex side of bend.

11. A hole punched for a three-quarter (¾) inch rivet, one and one-half (1½) inches from the edge of plate, shall be capable of being enlarged by drifting to one and one-eighth (1⅛) inches in diameter, without sign of fracture.

12. For steel pins the elongation may be five (5) per cent less, and the reduction at point of fracture ten (10) per cent less than specified.

Soft Steel Tests.

13. When tested in specimens as selected and described above, soft steel shall have an ultimate tensile strength of from 52,000 to 60,000 pounds per square inch, an elastic limit of not less than 32,000 pounds per square inch, and shall elongate not less than twenty-five (25) per cent. in eight (8) inches, and show a reduction in area at point of fracture of not less than fifty (50) per cent., except in web plates over thirty-six (36) inches wide, when the elongation will be reduced to twenty (20) per cent. and the reduction of area to forty (40) per cent. It must also bend cold through 180 degrees and close down upon itself without showing sign of fracture on convex side of bend. A hole punched for three-quarter (¾) inch rivet, and one and one-half (1½) inches from the edge of plate, shall be capable of being enlarged by drifting to one and one-half (1½) inches in diameter without sign of fracture.

Rivet Steel.

14. Rivet steel shall have an ultimate strength of 50,000 to 58,000 pounds and an elastic limit of not less than fifty-five (55) per cent. of the ultimate, an elongation of not less than twenty-seven (27) per cent., and must bend 180 degrees flat on itself without sign of fracture on the convex side of the bend.

15. Specimens taken from all grades of steel, after being heated to a light cherry red (as seen in the dark), and quenched in water 82 degrees Fahrenheit, must conform to the bending requirements above.

Chemical Analysis.

16. The chemical analysis for carbon and phosphorus of each blow or cast must be furnished to the Engineer or his inspectors, before any of the material rolled from sai blow or cast is shipped from the mill. Phos phorus must not exceed six one-hundredth (0.06) per cent. for acid steel, or four on hundredths (0.04) per cent. for basic steel.

Chippings and Alterations.

17. All blooms, billets or slabs shall examined for surface defects, flaws or blo holes before being rolled into the finishe sections, and such chippings and alteration

made as will secure perfect solidity in the finished sections.

Marking.

18. The original blow or cast number must be painted or stamped on all blooms, billets or slabs in order to identify the material throughout the various processes of manufacture; and the original blow or cast number, together with the furnace heat number, must be *stamped* on each piece of finished material from said blow or heat.

Finish.

19. All finished, rolled material must present a smooth, clean surface, free from buckles, flaws, cracks, ragged edges or any other defects, and must be straight throughout and true to section.

Brittle Steel.

20. No steel which proves brittle shall be used under any circumstances; if it develops this character at any stage of its manufacture, it shall be at once condemned and other material used. The object of the more particular clauses, hereto relating, being to guard against the possibility of the use of this class of metal.

CAST IRON.

21. Cast iron must be the best quality of soft, gray iron. The castings must be free from flaws, ragged edges, or any other defects impairing its efficiency or appearance; and bars of a section one (1) inch square, placed four (4) feet six (6) inches between supports, must be strong enough to bear a weight of five hundred (500) pounds placed half way between supports.

Timber.

22. The roadway planking and joists shall be of the best quality of white oak, and must be straight, sound, free from sap, large or loose knots, wind shakes or other defects. All other timber to be first quality, long leaf yellow heart pine, entirely free from sap and to be cut from live trees, grown south of the south line of Tennessee; to be straight, square edged, free from shakes, loose or rotten knots or other material defects.

WORKMANSHIP.

Character of Work.

23. All work must be done in a strictly first-class manner and shall at all times be subject to thorough and careful inspection.

24. Finished pieces shall be true to size, section and line, straight and out of wind at all points; and all machine, rivet and smith work done upon them shall be of the best character.

Straightening.

25. All material must be carefully straightened before being laid off.

Marking.

26. All parts which are given a descriptive letter or number in the drawings shall have that letter or number stenciled on them before shipment. Eye bars shall have it stamped on the edge at the extreme end of the bar.

Eye Bars.

27. All heads of eye bars shall be formed by upsetting on the solid bar, or by a process approved by the Engineer. Upsets shall be free from folds. Heads shall be clean, full sized forgings, formed centrally on the bar in true line and out of wind, and shall be free from lateral fissures, incipient cracks or flaws of any kind. In upsetting steel bars or rods sharp angles must be avoided where the upset joins the bar.

Annealing.

28. All steel tension members which have been heated shall, after work on them is completed, be thoroughly annealed by heating them uniformly to a cherry-red heat and allowing them to cool slowly.

Boring.

29. Bars of the same class and belonging to the same panel shall be bored at the same temperature. The pin holes and eye bars shall be bored to exact sizes and distances, and to a true perpendicular to the line of strain.

30. The pin hole shall be in the middle of the head and in the center line of the bars. Bars which are to be placed side by side in the bridge shall, if piled on each other, allow the pins to pass through at both ends without driving.

31. No error in the length of the bar or diameter of pin hole exceeding one sixty-fourth (1-64) of an inch will be allowed.

Tie Rods.

32. Rods used for ties or counters shall be fabricated with the same care and precision as is prescribed for eye bars. Screw ends shall be upset to such diameter as to insure

breaking in the body of the bar. All screw ends shall have truncated V threads, United States Standard, proportions and sizes.

Sleeve Nuts and Clevices.

33. Sleeve nuts, clevices or other attachments used for adjustment must be of sufficient strength to break the bar to which they are attached. Pin holes in clevices to be bored, the size of the hole not to exceed that of the pin more than one thirty-second (1-32) of an ince.

Pins.

34. Pins must be turned true to size and straight. No error of more than one-fiftieth (1-50) of an inch in diameter will be allowed in chord pins. They shall be provided with pilot nuts for erection.

35. Pins connecting laterals with other members shall be turned down to a diameter of not more than one thirty-second (1-32) of an inch smaller than the pin hole.

Splices.

36. Abutting joints shall be milled off to exact lengths, and square to the line of the chord, or to exact bevel, when required.

37. Pin holes shall be bored true to the line of stress and correct as to position.

38. No error exceeding one thirty-second (1-32) of an inch in length of part. or in position of pin hole, will be allowed.

Matching.

39. After the splice plates are riveted on in the shops, each line of chords shall be assembled, the joints matched, their abutting surfaces brought to a tight fit by use of clamps, and all the rivet holes in the ends of chords and splices shall be reamed to an exact match and fit. Match marks shall then be made in each piece.

Riveting.

40. All rivets with crooked heads, or heads not formed centrally on the shank, or rivets which are loose, either in the hole or under the shoulder, shall be cut and replaced with good rivets.

41. The diameter of the hole shall not exceed the diameter of the rivet more than one-sixteenth (1-16) of an inch.

42. All joint rivet holes shall be so accurately spaced that rivets of the proper size can be passed through all the holes in the joint after the parts are placed in position without the use of drift pins.

43. All splice pins in which the holes are mismatched, either in the plates themselves or with the adjoining chord or flange, shall be matched and the holes reamed to fit before leaving the shop.

44. No inaccurate or otherwise defective work will be accepted under any circumstances in connection joints or riveted work.

45. The riveted field connections of floor beams, posts and struts must be accurately matched before leaving the shops, and all unmatched holes reamed to fit.

46. Whenever practicable, rivets must be machine driven.

Cambre.

47. The bridges shall be given a cambre not less than the deflection under extreme loads.

INSPECTION AND TESTS.

Specimens.

48. The contractor shall furnish complete facilities for inspection of material and workmanship. Small specimens for testing of material and also the necessary labor shall be furnished by contractor, without charge, when called for by the Engineer or Inspector. Inspectors will be retained by the Sanitary District with full power to reject all work or material which does not in every way conform to the letter and spirit of the specifications.

Mill Testing.

49. All material shall be inspected at the mills where it is rolled.

50. Test specimens shall fairly represent material to be tested, and shall not in any way be worked on to alter quality before testing. They shall be cut whenever practicable so as to retain two opposite sides as they come from the the rolls. Reds not exceeding one (1) square inch shall be tested in full size specimens.

51. Regular bending specimens shall be taken, one for every tensile test. They shall have the rough edges planed off, and shall be duplicates of, and cut from, the same originals as tensile tests for the same material.

52. Tests shall be sufficient in number to fairly represent, in the judgment of the Engineer, the material to be inspected; the

shall, however, be no more than two (2) tests, *i. e.*, two (2) tensile and two (2) bending specimens, for every twenty pieces in the order.

53. The passing of any material at the mills shall not prevent its subsequent rejection for cause. If found defective after delivery, such material shall be replaced at the expense of the contractor.

PAINTING AND SHIPPING.

Painting.

54. All iron work, before leaving the shops, shall receive one good coat of No. 31 National Paint Works, Williamsport, Pa. paint, or paint of equal excellence, well worked into all joints and open spaces.

55. In riveted work both surfaces coming in contact shall be painted before being riveted together. Bottoms of bed plates, bearing plates and any parts which are not accessible for painting after erection shall have two (2) coats of paint of the same brand

56. After the structure is erected the iron work shall be thoroughly and evenly painted with two additional coats of No. 31 "Special" National Paint Works, Williamsport, Pa. paint, or paint of equal excellence.

57. All recesses which will retain water, or through which water can enter, must be filled with thick paint or some water-proof cement before receiving the final painting.

58. All finished surfaces shall be coated with white lead and tallow before being shipped from the shop.

59. No painting shall be done in wet or freezing weather.

Shipping.

60. All parts shall be carefully loaded, so as to avoid injury in transportation, and shall be at Contractor's risk until erected and ready for traffic.

61. All screw ends shall be wrapped with twine before shipment.

62. All pins and small parts must be securely boxed, and the boxes plainly marked. The weights of large pieces must be marked on them. The invoices shall state the contents of each box, and the weight and description of each piece that is not boxed, and two copies of each invoice shall be furnished the Sanitary District of Chicago.

ERECTION.

63. The Contractor shall furnish all staging and false work, shall erect and adjust all the metal work, shall furnish and put in place all floor timbers, timber guards, also place the masonry bolts and secure them in place.

64. The Contractor shall so conduct all his operations as not to impede the traffic on the road, or interfere with the work of other contractors, or close any thoroughfare by land or water, except by written consent of the Engineer.

65. The Contractor shall assume all risk of accidents to men or material prior to the acceptance of the finished structure. The Contractor must also remove all false work, piling and other obstructions, or unsightly material produced by his operations.

FINAL ACCEPTANCE.

66. Any material or workmanship which does not satisfy the requirements of these specifications may be rejected by the Engineer at any time before the final acceptance of the work, and the Contractor shall make good all deficiencies at his own cost. The fact that the authorized inspectors have accepted said material or workmanship shall not make the Sanitary District liable for extra cost above that specified in the contract, for replacing same with material or workmanship accepted by the Engineer on final acceptance.

GENERAL CONDITIONS.

Workmen.

67. The Contractor shall employ competent foremen and laborers, and shall discharge, at the request of the Engineer, any incompetent or unfaithful men in his employ. None but men expert in their respective branches of work will be employed where special skill is required, and in the employment of men preference shall be given to union laborers.

68. It is especially understood and agreed that eight (8) hours shall constitute a day's work, and no workman shall be employed or required to work more than eight (8) hours out of any twenty-four (24) hours, and no work in excess of that time shall be allowed.

69. In the event of any violation of the above eight hour provision, it is agreed hereby that the said District shall and that it is duly authorized to retain from any money due or to become due at any time from it to the second party, as liquidated damages, the

sum of five (5) dollars per hour for each hour that any employe shall be required to work in excess of eight (8) hours per day, pursuant to the terms and conditions of the ordinance adopted June 23, 1897, attached hereto.

Patents.

70. It is further agreed that second party shall indemnify, keep and save harmless said first party from all liabilities, judgments, costs, damages and expenses which may in any wise come against said first party, or which may result on account of any infringement of any patent by means of the use of any materials, machinery, device or apparatus used in the performance of this contract, or of designs furnished by second party and accepted by the Sanitary District. And in the event of any claim or suit or action at law or equity of any kind whatsoever being made or brought against said first party, then first party shall have the right to retain a sufficient amount of money in the same manner and upon the same conditions as hereinafter in the next following clause of this contract provided.

Damages.

71. If any damage shall be done by the contractor, or by any person or persons in his employ, to the owner or occupants of lands or to any property adjoining or in the vicinity of the work herein contracted to be done, or to a neighboring contractor, for which the contractor herein is legally liable, the Engineer shall have the right to estimate the amount of said damage, and to cause the Sanitary District to pay the same to the said owner or occupant, and the amount so paid for such damage shall be deducted from the money due said contractor under said contract.

72. Said contractor covenants and agrees to pay all damages for any personal injury sustained by any person growing out of any act or doing of himself or employes, that is in the nature of a legal liability, and he hereby agrees to indemnify and to save the Sanitary District harmless against all suits or actions of every name and description brought against the said Sanitary District for or on account of any injuries or damages received or sustained by any person or persons by or from said Contractor, his servants, agents or employes, in the execution of said work; or by or in consequence of any failure or negligence in guarding or protecting the same; or by or on account of any act or omission of said Contractor, his agents or employes; and the said Contractor further agrees that so much of the money due to him, under and by virtue of this contract, as shall be considered necessary by the Board of Trustees of the Sanitary District may be retained by the said Sanitary District until such suit or claims for damages as aforesaid shall have been settled, and evidence to that effect furnished to the satisfaction of the said Board of Trustees.

73. It is further agreed that in all cases of question or dispute arising or growing out of this contract in any way, regarding the cost or value of extras, variations, allowances, deductions or the amount of damages in any manner growing out of the violation of this contract, the decision of the Engineer shall be final and binding on both parties hereto.

Responsibility of Contractor.

74. The Contractor shall at no time be allowed to obstruct, impede or endanger the traffic on the temporary roadways that the Sanitary District has already constructed, or may construct, at or around the site of the bridges.

Time.

75. The Contractor agrees to begin work within fifteen (15) days after receiving the plans for said bridge. All work required to be done under this contract shall be completed and ready for inspection on or before the first day of March, 1900.

Price.

76. In consideration of the said work being carried on and completed in time and manner as specified, the said party of the first part agrees to pay to the said party of the second part, and the said party of the second part agrees to receive and accept as full compensation therefor, including the furnishing by him of all necessary material, tools, labor, machinery and appliances, as follows:

For superstructure complete as specified twenty thousand, nine hundred and seventy five dollars ($20,975.00).

Also to furnish extra material in places at a cost as follows:

Extra iron or medium or soft steel five (5) cents per pound.

Extra lumber, thirty dollars ($30.00) per 1,000 feet, B. M.

These prices also to apply to any reduction of material that may be made by reason of changing plans.

Royalties.

77. The price proposed must include all royalties for patents or patented materials and appliances used in the construction of the work described in the specifications and agreements, and, before final payment is made, the Contractor shall furnish a satisfactory guarantee against all said claims.

Time and Manner of Payment.

78. It is agreed by the party of the first part that when the entire iron work shall have been delivered at the site of erection, payment shall be made to the party of the second part to the amount of sixty (60) per cent. of the aggregate cost of the work covered by the contract, upon written certificate from the Engineer that such approximate amount of work has been done. The remaining forty (40) per cent. to be paid within thirty (30) days of the completion of the work and its acceptance by the first party.

Certificate.

79. On all work provided for in this contract being completed in accordance with the contract and to the full satisfaction of the Engineer, and on its being inspected by him and a certificate made by him setting forth the amount of said work, and that the said work has been completed, the said party of the first part agrees to pay to the said party of the second part the amount shown to be due to the said party of the second part by the certificates of the said Engineer.

Failure to Complete.

80. The entire metal work for the structure herein provided for shall be delivered at the site of the erection on or before January 15th, 1900, and all the work provided to be done under this contract shall be completed and ready for inspection on or before the 1st day of March, 1900.

81. Should there be a failure by second party to deliver said iron work of the character and strength herein provided for by said 15th day of January, 1900, or if, after delivery of same as herein provided, said Contractor shall fail financially, either before or after having been paid the sixty (60) per cent of the contract price, as hereinbefore provided, and be unable to carry out said contract and complete said work, then, in that case, the said party of the first part shall have the power to complete said work by contract or otherwise, at its discretion, and charge up the cost of so completing the said work to said Contractor. Should the amount remaining unpaid of the contract price not suffice therefor, then said Contractor and his bondsmen shall be held liable for the deficiency.

Payment of Laborers.

82. Said Contractor shall pay the laborers employed by him promptly at regular intervals, and at least twice each month, and shall not pay said laborers in scrip checks or other evidences of indebtedness, nor in any manner other than in lawful currency of the United States. And if at any time during the progress of said work said Contractor shall fail or neglect to pay for labor performed, and in manner aforesaid, or for material furnished upon said work, then the party of the first part shall have the power to pay for such labor or material out of any money or moneys that may be due to said Contractor, and said amount so paid shall be retained out of any money due or to become due to said Contractor. In any such case the party of the first part is hereby authorized and empowered by said party of the second part to ascertain the amount or amounts due or owing from said Contractor to any laborer or laborers, or to any person for material furnished, in such manner and upon such proof as it may deem sufficient, and without giving any notice of such proceedings to said Contractor, and the amount or amounts so found by the said party of the first part to be due and owing to said laborer or laborers, or to said materialmen, shall be final and conclusive as against said Contractor, and may thereafter be paid over by the said first party to such laborer, laborers or materialmen.

Contractor's Bond.

83. The Contractor shall furnish a bond in the sum of four thousand ($4,000) dollars for the superstructure of the aforesaid bridge across the River Diversion Channel, with good and sufficient sureties, the same to be satisfactory to the Board of Trustees of the Sanitary District, conditioned upon the faithful performance of all the terms and conditions of this contract; and should the sureties on said bond at any time fail financially, or be, in the opinion of the said Board of Trustees, insufficient security for the penalty

of said bond, then, in that case, they may, on giving ten (10) days notice thereof in writing, require said Contractor to furnish a new and additional bond in the place of the bond so having become insufficient or worthless.

Final Payment.

84. The said party of the second part further agrees that he shall not be entitled to demand or receive final payment for any portion of the aforesaid work or materials except in the manner set forth in this agreement, nor until each and all of the stipulations hereinbefore mentioned are complied with, and the said Engineer shall have given his certificate to that effect; whereupon the said party of the first part will, at the expiration of thirty (30) days after such completion and delivery of such certificate, pay, and it hereby binds itself to pay, the said party of the second part, in cash, the whole amount of money accruing to said second party under this contract, excepting such sum or sums of money as may be lawfully retained under any of the provisions of this contract hereinbefore set forth; providing, that nothing herein contained shall be construed to affect the right hereby reserved of the said party of the first part to reject the whole or any portion of the aforesaid work should the said certificate be found to be inconsistent with the terms of this agreement, or otherwise improperly given.

85. The Contractor hereby agrees to forfeit as liquidated damages for any noncompliance with, or nonfulfillment of, the provisions of this contract, the sum of fifty ($50.00) dollars per diem for each day beyond the time specified, to-wit, March 1st, 1900, within which the work herein provided is to be completed, time being an essential part of this contract.

86. Said The Joliet Bridge and Iron Company also hereby agrees that it will keep and save harmless said Sanitary District of Chicago from any and all loss, damage or liability arising to any person, persons or corporation whomsoever by reason of the failure of said contractor to complete the work above mentioned within the time specified herein, to-wit, by March 1st, 1900; and that said contractor will perform the work above mentioned in such manner as not to interfere with navigation, according to the terms of a contract entered into by the Sanitary District of Chicago with the Canal Commissioners of the Illinois and Michigan Canal, dated March 11th, 1998, which said conditions, in so far as they apply to navigation and work to be done by said "District," shall be made a part of this contract.

In Witness Whereof, On the day and year first above written, the said Sanitary District of Chicago has caused this agreement to be signed by its President and attested by its Clerk, and its corporate seal to be hereto affixed, and the said party of the second part has hereunto set its hand and seal.

The Sanitary District of Chicago,
By WILLIAM BOLDENWECK,
President.

Attest:

JOSEPH F. HAAS,
[SEAL] *Clerk.*

The Joliet Bridge and Iron Co.,
ROBERT C. MORRISON,
President.

JOHN HEATHERWICK,
[SEAL] *Sec'y.*"

REPORT IN REFERENCE TO INSPECTION OF C. T. T. BRIDGE NEAR TAYLOR STREET.

Mr. Smyth, Chairman, presented, and the Clerk read, a report from the Committee on Engineering in reference to, and accompanied by, a communication from the Bridge Engineer in regard to the question of mill and shop inspection for the Calumet Terminal Transfer Bridge near Taylor Street; the report recommending that the Chief Engineer be authorized to employ R. W. Hunt & Co. to do the work necessary, at the price of seventy cents per ton, and make report of the progress of said work from time to time, with statement of amount of material used and money due said contractors.

Mr. Smyth, seconded by Mr. Carter, moved that the report be adopted and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—nine. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, October 10, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Your Committee on En

gineering reports that a communication from Wm. Hughes, Bridge Engineer, has been received touching the question of mill and shop inspection for the C. T, T. Ry. Co.'s bridge, near Taylor Street. The Committee is advised that this matter should be settled as early as possible, as some of the materials for anchorage have already been rolled. Messrs. R. W. Hunt & Co. have made a proposition to do the work for seventy cents per ton, and Engineer Hughes advises that this is a very low figure, inasmuch as it covers all metal work in the bridge, including machinery and electrical equipment.

The Committee, therefore, recommends that the Chief Engineer be, and he is hereby, authorized and directed to employ said R. W. Hunt & Co. to do the work necessary, as mentioned above, at the price above quoted, and that said Engineer make report of the progress of said work from time to time to your Committee, together with a statement of amount of material used, and amount of money due said contractors.

Respectfully submitted,

(Signed) THOMAS A. SMYTH,
Chairman.

ALEX. J. JONES,
Z. R. CARTER,
THOMAS KELLY,
FRANK WENTER,
JOS. C. BRADEN,
WM. BOLDENWECK,
Committee on Engineering."

(One enclosure)

REPORT IN REFERENCE TO REMOVAL OF MILL STONE AT JOLIET.

Mr. Smyth, Chairman, presented, and the Clerk read, a report in reference to, and accompanied by, a communication from the President of the Public Library Board of the City of Joliet, asking permission to remove from the bed of the Desplaines River, near Joliet, the first mill stone ever used in Joliet, for the purpose of preservation as a historical relic; the report recommending that permission be given and authority granted for the removal of said stone, providing it be done without expense, loss or damage to the property or interests of the District.

Mr. Smyth, seconded by Mr. Braden, moved that the report be adopted and the recommendations contained therein be concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—nine. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, October 10, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—A communication has been received by your Committee on Engineering from Egbert Phelps, Esq., President of the Public Library Board of the City of Joliet, requesting permission to remove from the bed of the Desplaines River, near Jefferson Street, in said city, the first mill stone ever used in Joliet. It appears from said communication that said stone is desired as an historic relic, for use of the Public Library Board; and the Committee therefore recommends that permission and authority be and they are hereby granted to said Egbert Phelps to remove said stone from the river as aforesaid, provided that it be done without expense, loss or damage to the property or interests of the Sanitary District of Chicago.

Respectfully submitted,

(Signed) THOMAS A. SMYTH,
Chairman.

JOS. C. BRADEN,
Z. R. CARTER,
THOMAS KELLY,
B. A. ECKHART,
FRANK WENTER,
ALEX. J. JONES,
WM. BOLDENWECK,
Committee on Engineering."

(One enclosure.)

ORDER IN REFERENCE TO ADDITIONAL PAYMENT ON ACCOUNT OF RESERVE PERCENTAGE ON CONTRACT FOR SECTION 17.

Mr. Carter presented, and the Clerk read the order directing that the Clerk shall pay from the reserve percentage on the contract for Section 17, the sum of $10,000.00, to be charged to the account of Messrs. Heldemaier & Neu, contractors for said section.

Mr. Carter, seconded by Mr. Wenter, moved that the order be adopted.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—nine. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE ORDER:

"WHEREAS, It has been shown to the members of the Engineering Committee that it will forward the interests of the work on Section 17 to make an advance of $10,000.00 to the contractors for that section, Messrs. Heldmaier & Neu, which said advance is to be used in carrying on said work; therefore, be it

Ordered, That the Clerk shall pay from the reserve percentage in the hands of the District, upon the voucher of the Chief Engineer, the sum of ten thousand dollars, which sum shall be duly charged to the account of the said Heldmaier & Neu, contractors for Section 17."

ADJOURNMENT.

On motion of Mr. Mallette, seconded by Mr. Eckhart, the Board then adjourned.

Joseph F. Haas

Clerk.

PROCEEDINGS

—OF THE—

BOARD OF TRUSTEES

—OF THE—

SANITARY DISTRICT OF CHICAGO.

OCTOBER 18, 1899.

OFFICIAL RECORD.

Published by authority of the Board o Trustees of the Sanitary District of Chicago.

REGULAR MEETING.

The four hundred and fifty-ninth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Wednesday, October 18, 1899, at 2 o'clock P. M.

On roll-call Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—nine members were present.

President Boldenweck then called the Board to order.

MINUTES.

The minutes of the regular meeting, held October 12, 1899, were approved as printed, on motion of Mr. Kelly, seconded by Mr. Jones.

REPORT IN REFERENCE TO DESTRUCTION OF BRIDGE AT SAG CROSSING.

The President presented, and the Clerk read, a report in reference to the destruction by fire of the bridge at Sag, crossing the I. and M. Canal, and setting forth that the President had arranged for the removal of the wreck and the payment to the Sanitay District of one hundred dollars for the iron in the structure, and asking approval of his action.

Mr. Kelly, seconded by Mr. Mallette, moved that the report be received and the action of the President concurred in.

The motion prevailed unanimously and it was so ordered.

The following is

THE REPORT:

"CHICAGO, October 18, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—On the evening of Octo-

ber 12th the bridge at Sag, crossing the Illinois and Michigan Canal, the property of the Sanitary District of Chicago, was destroyed by fire and the wreck blocked navigation of the Canal. I did not hear of this until Saturday, October 14, being at the time at Lemont. I endeavored to have the Canal Commissioners remove the wreck, but they did not want to undertake the work. I therefore arranged with a party at Lemont to remove the wreck inside of forty-eight hours and pay to the Sanitary District one hundred dollars for the iron in the structure. I respectfully ask your approval of my action.

Respectfully submitted,

(Signed) WILLIAM BOLDENWECK,
President.

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* VOUCHERS.

The Clerk presented the following vouchers :

ENGINEERING DEPARTMENT.

Isham Randolph (traveling and expense)		$ 36 83

CONSTRUCTION ACCOUNT.

Lyden & Drews Company (By-pass)	$ 6,814 06	
Gahan & Byrne (Section H, October 16, 1899)	3,158 10	
Christie & Lowe (Section K, October 16, 1899)	1,127 53	
Hayes Bros. (Section M, pumps)	69 54	
Hayes Bros. (Section M, Santa Fe bridge)	75 67	
Hayes Bros. et al. (Section N, October 16, 1899)	9,620 58	
Hayes Bros. et al. (Section O, October 16, 1899)	1,464 40	
McArthur Bros. Company (Section O, eight-track bridge)	11,061 25	
McArthur Bros. Company (Section O, eight-track bridge)	7,254 55	
Thomas Moulding Company (Section O, eight-track bridge)	1,678 75	
Geo. M. Huss (Section O, pumping plant)	411 51	
Geo. M. Huss (Section O—P. H. bridge)	90 91	
Lydon & Drews Company (Chicago River dredging)	4,937 63	
Lydon & Drews Company (Chicago River dredging)	4,752 00	
		$52,516 48
Total		$52,603 31

* To be paid by warrants, with interest coupons attached, drawn against the Tax Levy for 1899.

Mr. Carter, seconded by Mr. Wenter, moved that the vouchers, as read and shown above, be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—nine. Nays—none.

Upon this result the President declared the motion carried.

MONTHLY REPORT FROM TREASURY DEPARTMENT.

The Clerk presented a report from the Treasury Department for the month of September, 1899, which was read, and, by unanimous consent, was ordered printed and placed on file.

The following is THE REPORT :

Receipts.

Balance on hand at date of last report		$ 212,363 86
From County Treasurer, Sanitary District Tax Account	$ 300,000 00	
From J. F. Haas, Clerk, Construction Account	50 00	
From Chicago National Bank, Interest Account	189 98	
Total cash received for month		$ 300,239 98
		$ 512,603 84

Disbursements.

Clerical Department	$ 18 66	
Engineering Department	152 12	
Law Department	60 55	
General Account	403 90	
Maintenance Account	78 06	
Tax Warrants paid, levy 1898	361,940 38	
Interest paid on Tax Warrants, levy 1898	9,078 51	
Total cash disbursed		$ 371,732 18
Balance this date, in banks as per schedule endorsed hereon		140,871 66
		$ 512,603 84

Schedule.

Chicago National Bank	$ 114,932 88
National Bank of Illinois	25,938 78
Total	$ 140,871 66

CHICAGO, October 10th, 1899. (Signed) F. M. BLOUNT, *Treasurer.*

By S. P. BLOUNT, *Asst. Treasurer.*

MONTHLY REPORT FROM CLERICAL DEPARTMENT.

The Clerk presented a report from the Clerical Department for the month of September, 1899, which was read and by unanimous consent was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, October 1, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I herewith submit the report of the Clerical Department for the month of September, 1899.

The total expenditure of the District for the month was $695,869.84, of which amount the sum of $1,105.21 was paid in Regular Warrants; $323,745.74 in 1899 Tax Levy Warrants, and the sum of $371,018.89 by the Treasurer of the District, for which no warrant was required. Of the amount paid by the Treasurer the sum of $361,940.38 was for 1898 Tax Warrants redeemed, and $9,078.51 for interest on warrants redeemed.

The total amount expended on account of, and charged to, the Clerical Department during the month of September was $1,043.33 for salaries.

There are no outstanding liabilities against the Clerical Department and the expenditure for the present month will be about $1,200.00.

The total amount expended for account of, and charged to, the General Account during the month of September was $7,642.99, divided as follows:

Rent for September, 1899	$ 498 33
Printing	385 59
Streams Examination	1,698 80
Salaries	2,957 83
Exposition Model	1,500 00
General Expenses	602 44
Total	$7,642 99

The expenditure for the present month for the General Account will be about $6.000.00.

Of the total amount of 1896 Tax Levy Warrants issued there is now outstanding the sum of $11,372.05; of the 1897 Tax Levy Warrants issued there is now outstanding the sum of $15,000.00; of the 1898 Tax Levy Warrants issued there is now outstanding the sum of $11,151.80; and of the 1899 Tax Levy Warrants there is now outstanding the sum of $1,789,685.70.

The following is a tabulated statement of total expenditures for the month of September, 1899:

Account.	Regular Warrants.	1899 Tax Levy Warrants.	Paid by Treasurer.	Total for Month.
Engineering Department	$ 449 55	$ 13,366 76	.....	$ 13,816 31
Construction	.....	289,529 80	.....	289,529 80
Clerical Department	.....	1,043 33	.....	1,043 33
Law Department	105 38	2,038 98	.....	2,144 36
Treasury Department	.....	166 66	.....	166 66
General	410 83	7,232 16	.....	7,642 99
Police Department	21 47	2,699 81	.....	2,721 28
Maintenance	117 98	1,576 79	.....	1,694 77
Joseph F. Haas, Clerk	.....	6,091 42	.....	6,091 45
1898 Tax Warrants Redeemed	.....	.....	$361,940 38	361,940 38
Interest on Tax Warrants Redeemed	.....	.....	9,078 51	9,078 51
Total	$ 1,105 21	$328,745 74	$371,018 89	$695,869 84

Respectfully submitted,

(Signed) JOSEPH F. HAAS, *Clerk.*"

REPORT IN REFERENCE TO ORDINANCE OF CITY OF JOLIET AND PASSAGE OF DISTRICT ORDINANCE.

Mr. Smyth, Chairman, presented, and the Clerk read, a report from the Committee on Engineering in reference to, and accompanied by, an ordinance accepting an ordinance passed by the City of Joliet in settlement of disputed questions as to the construction of bridges at Jefferson and Cass Streets in said city, and other works in and throughout the said City of Joliet, the report being also accompanied by a copy of said ordinance of the City of Joliet, and recommending the adoption of the acceptance by the Board.

Mr. Smyth moved the adoption of the report and the passage of the District ordinance.

Mr. Wenter, seconded by Mr. Eckhart, moved that the vote be divided as to the question of the adoption of the report and the passage of the said District ordinance.

The motion prevailed unanimously and it was so ordered.

Mr. Eckhart, seconded by Mr. Wenter, then moved that the said District ordinance be adopted.

Mr. Smyth moved as a substitute that the report be adopted.

Mr. Jones moved as an amendment that the recommendations of the Committee be concurred in.

On roll-call on the motion of Mr. Jones the vote stood: Yeas—Messrs. Boldenweck, Eckhart, Jones and Wenter—four. Nays — Messrs. Braden, Carter, Kelly, Mallette and Smyth—five.

Upon this result the President declared the motion lost.

On roll call on the motion of Mr. Smyth for the adoption of the report the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Jones, Kelly, Mallette and Smyth—seven. Nays—Messrs. Eckhart and Wenter—two.

Upon this result the President declared the motion carried and the report adopted.

On roll call on the motion of Mr. Eckhart for the adoption of the said District ordinance the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—nine. Nays—none.

Upon this result the President d clared the motion carried and the Di trict ordinance adopted.

The following is

THE REPORT:

"CHICAGO, October 6, 1899.

To the Honorable, the Board of Trustees the Sanitary District of Chicago:

GENTLEMEN—Your Committee on E

gineering, having had under consideration the ordinance passed by the City of Joliet in settlement of disputed questions in relation to the construction of the bridges at Jefferson and Cass streets, in said city, and other works in and throughout the said City of Joliet, beg leave to report that they have examined said ordinance and they find that said ordinance by its terms and provisions concedes all of the demands of the Sanitary District of Chicago made by it in relation to being permitted by said city to prosecute its work through the City of Joliet, without interference by the City of Joliet, by injunction or other obstructive methods; that the ordinance provides that the said City of Joliet shall not in any manner, by proceedings in court or otherwise, obstruct the Sanitary District of Chicago in the construction of its work.

We consider the passage of the ordinance by the City Council of the City of Joliet a happy and proper settlement of existing differences between the Sanitary District of Chicago and the said City of Joliet and a vindication of the wisdom of the Engineering Committee in insisting upon such promises as will secure the completion of the channel without further interference by the City of Joliet; and we therefore recommend the adoption of the following acceptance by your Honorable Board.

(Signed) THOMAS A. SMYTH,
Chairman.
J. P. MALLETTE,
Z. R. CARTER,
THOMAS KELLY,
JOS. C. BRADEN,
ALEX. J. JONES,
WM. BOLDENWECK,
Committee on Engineering."

The following is

THE ORDINANCE OF THE SANITARY DISTRICT OF CHICAGO.

"*Be it Ordained by the Sanitary District of Chicago:*

SECTION 1. That an ordinance of the City of Joliet, passed by the City Council of the City of Joliet, October 17th, A. D. 1899, and approved by the Mayor of said city on the same date, entitled 'An ordinance amending an ordinance numbered 1752, entitled' 'An ordinance granting to the Sanitary District of Chicago the right to construct a channel across the butt ends of certain streets and alleys, and to remove and replace bridges,' passed July 8th, A. D. 1898, approved July 9th, A. D., 1898, and repealing certain sections of said above entitled ordinance," be and the same is hereby accepted by the Sanitary District of Chicago.

SECTION 2. That the President of the Board of Trustees of the Sanitary District and the Clerk of said Board, under the corporate seal of said District, be and are hereby instructed to file with the City Clerk of the City of Joliet the acceptance of the Sanitary District of Chicago of said ordinance."

The following is

THE ORDINANCE OF THE CITY OF JOLIET.

"An ordinance amending an ordinance Numbered 1752, entitled "An ordinance granting to the Sanitary District of Chicago the right to construct a channel across the butt ends of certain streets and alleys and to remove and replace bridges," passed July 8, A. D. 1898, and approved July 9, 1898, and repealing certain sections of said above entitled ordinance.

Be it ordained by the City Council of the City of Joliet:

SECTION 1. The right is hereby granted to the said Sanitary District of Chicago, and it shall be its duty to remove, without expense to said city, the present bridge across the Desplaines River at Jefferson Street, and in lieu thereof, to construct, at its own expense, a new steel bridge which shall be forty-two (42) feet between the centers of trusses, with sidewalks on both sides, conforming in width to the street sidewalks on said Jefferson Street at the east line of said Desplaines Street, making said bridge, inclusive of said bridge sidewalks, sixty-six (66) feet wide.

The outside of each of the sidewalks of said bridge shall be protected by a substantial, ornamental, metal handrail, which shall be rigidly attached to the superstructure.

The substructure of said bridge, consisting of abutments, sustaining piers, and other work of this character, shall be constructed of the best Portland cement concrete, for this class of work, well laid and built up and of sufficient strength and endurance to serve all the purposes and design intended thereby, all to be done in a first class, good and workmanlike manner.

The general plan for said bridge is attached to said above entitled ordinance No. 1752, marked "Exhibit A," and made a part thereof, and is also hereby made a part of this ordinance.

The super-structure of said bridge shall be built pursuant to Class A. 1, Cooper's specifications of 1896, a copy of which is attached to said above entitled original ordinance, No. 1752, marked "Exhibit B," and made a part thereof, and is also hereby made a part of this ordinance. Said bridge shall be a good substantial structure in every respect.

SECTION 2. Said Sanitary District of Chicago is hereby granted the right to remove the present bridge across the said Desplaines River and the Illinois and Michigan Canal at Cass street. The ownership of said bridge when removed shall be retained by the said City of Joliet.

The Sanitary District of Chicago shall construct a new steel bridge across said river and canal at said Cass street, which shall be thirty-four (34) feet wide between the centers of trusses, with sidewalks on each side thereof, of a width of eight (8) feet each, making said bridge, inclusive of sidewalks, fifty (50) feet in width. The outside of each of the sidewalks of said bridge shall be protected by a suitable, substantial, ornamental metal hand-rail, which shall be rigidly attached to the super-structure.

The sub-structure of said bridge, consisting of abutments, sustaining piers and other work of this character, shall be constructed of the best Portland cement concrete for this class of work, well laid and built up, and of sufficient strength and endurance to serve all the purposes and design intended thereby, all to be done in a first-class, good and workmanlike manner.

The general plan for said bridge is attached to said above entitled original ordinance No. 1752, marked "Exhibit C" and made a part thereof, and is also made a part of this ordinance.

The superstructure of said bridge shall be built pursuant to Class A. 1, Cooper's specifications of 1896, a copy of which is attached to said above entitled original ordinance No. 1752, marked "Exhibit B" and made a part thereof, and is also hereby made a part of this ordinance. Said bridge shall be a good, substantial structure in every respect.

The entire cost and expense of said Cass street bridge shall be borne and paid by the said Sanitary District of Chicago.

SECTION 3. Both of said bridges to be constructed as provided for in Section one (1) and two (2) of this ordinance, shall be paved with oak blocks according to specifications to be submitted to and approved by the City Council of the City of Joliet, and the floor and approaches of each of said bridges shall not be raised to an elevation higher than the floor and approaches of each of the present bridges. After said bridges are completed by the said Sanitary District of Chicago, and accepted by the said City of Joliet, they each shall be forever owned and maintained by the said City of Joliet. Each of said bridges shall be fully completed by the first day of April, A. D 1900.

SECTION 4. The substructure, the piers and abutments, and other work pertaining thereto, of each of said two bridges, shall be under and subject to inspection by the City Engineer of the City of Joliet, as the work shall progress, for determination as to whether or not such work is being done according to the plans and specifications therefor, and according to the terms of this ordinance. And should said City Engineer find that such work is not being done according to said plans and specifications, and the terms of this ordinance, he shall immediately report in writing such fact to the Chief Engineer of the said Sanitary District of Chicago, and should said two Engineers be unable to agree upon the conduct of such work in respect to such report, within one (1) day after the service of such notice on the Chief Engineer of the said Sanitary District of Chicago, then the Hon. John Lambert, of the City of Joliet, Illinois, shall forthwith appoint a third party, expert in the questions at issue, to act with them, and the three shall arbitrate and determine the questions in dispute as speedily as possible, and a decision of a majority of said persons shall be final. The cost of said arbitration shall be paid by such party or parties, and in such proportions as the Board of Arbitration shall adjudge; provided, however, if such work shall proceed after the service of said written notice as aforesaid on the Chief Engineer of the said Sanitary District of Chicago, it shall be at the risk and peril of the said Sanitary District of Chicago.

The putting and place and erection of the super structure of said two bridges shall be under and subject to inspection, as such work progresses, of R. W. Hunt & Co. The said Sanitary District of

Chicago shall bear and pay all the costs and expenses of the inspection of the super-structure of said two bridges.

SECTION 5. The said Sanitary District of Chicago shall so repair the superstructure of the present bridge across the Desplaines River and the Illinois and Michigan Canal at Jackson Street by re-enforcing the chord members thereof whenever necessary by splice, by bolts and by frame bents beneath the span; the sills for the bents to be placed at or below grade of Main Channel, and to be anchored so securely as to withstand the current; and on such superstructure of said Jackson Street Bridge to furnish such material and do such other work as will render such Jackson street bridge safe and secure for public travel, and so maintain the same during the time of construction of the said Cass and Jefferson Streets Bridges.

From such piers, abutments and other sub-structure shall be removed all broken or unsound stone appearing on the face, and the voids so made shall be filled with Portland cement concrete mixed in the following proportions, to-wit: One part cement, three parts sand and five parts broken stone. Such concrete to be rammed into the voids so as to insure that they shall be completely filled. The outer surface of the concrete so placed shall be faced with three (3) inches of Portland cement mortar made of one part cement and two parts sand.

The piers, abutments and other substructure of said Jackson Street Bridge shall be re-pointed with the best quality of Portland cement mortar mixed in parts one of cement and one of sand. All unsound mortar shall be first raked out of joints to a depth of one and one-half inches, and all joints shall be thoroughly cleaned and wetted before re-pointing.

All of such work shall be done in a good and first class manner and with all convenient speed. Such work of repairing said Jackson Street Bridge shall be under and subject to inspection by the City Engineer of the City of Joliet, as such work and repair shall progress, and in case said City Engineer shall find that said work is not being done in accordance with the terms of this ordinance, he shall report the same immediately in writing to the Chief Engineer of the Sanitary District of Chicago, and should said two engineers be unable to agree upon a method of doing said work in respect to such report, the matters in dispute shall be decided by arbitration as hereinbefore provided. All such repairs made, materials furnished and labor performed upon said Jackson Street Bridge shall be borne and paid by the said Sanitary District of Chicago.

SECTION 6. For the use and benefit of the public and for public travel, while the bridge across the Desplaines River, at Jefferson Street, is in process of construction, as provided for in Section one (1) of this ordinance, the said Sanitary District of Chicago shall maintain the temporary bridge by it constructed at Jefferson Street in a manner adequate and secure for public travel, and shall continue such maintenance until such time as the new bridge at Jefferson Street is ready and open for public travel.

Upon the completion by the said Sanitary District of Chicago, and the acceptance of the new steel bridge at Jefferson Street by the City of Joliet, the said Sanitary District of Chicago shall have the right, and it shall be its duty to replace the tracks of the Joliet Railroad Company upon and across such new bridge at said Jefferson Street in the center of said new bridge.

All the costs and expense in the construction and maintenance of such temporary bridge, and replacing of such railroad tracks, and the taking down and removing of such temporary bridge shall be borne and paid by the said Sanitary District of Chicago.

SECTION 7. When the repairs upon the superstructure of the said Jackson Street Bridge shall have been made to such an extent that the same is ready and secure for public use and public travel, as above set forth, all as a condition precedent, then the said Sanitary District of Chicago shall have the right at once to close the said Cass Street Bridge to public use and public travel, and take down the said Cass Street Bridge, doing no unnecessary damage to the timbers, bolts and iron work of such superstructure, and may proceed to construct the new bridge herein provided for at Cass Street.

SECTION 8. The said Sanitary District of Chicago shall indemnify, save and keep harmless the said City of Joliet from any and all damages, to persons or property, for which the said city would be legally liable by the doing of all or any of said work by the said Sanitary District of Chicago, especially including the construction, maintenance and use by the public of the temporary bridge erected at Jefferson Street by the said Sanitary District of Chicago; and in the

event of the institution of a suit or suits against the City of Joliet by any person or persons for the recovery of any damage, loss or injury caused to any person or property by reason of the doing of said work, or the manner in which said work may be done by the said Sanitary District of Chicago, or by reason of the maintenance and use of said temporary bridge at Jefferson Street by the public for public travel, or otherwise, said Sanitary District of Chicago shall, upon receipt of written notice of the institution or pendency of such suit or suits, served upon the said Sanitary District of Chicago in the same manner as provided by the statutes of this State for the service of a chancery summons upon a private corporation, intervene in such suit or suits and at its own cost and charge defend each suit or action and pay and discharge any judgment or judgments that may be recovered against such City of Joliet in any such proceeding, inclusive of all costs adjudged against said City of Joliet.

SECTION 9. Sections three (3), four (4), five (5), eight (8), and nine (9) of said Ordinance No. 1752, entitled "An ordinance granting to the Sanitary District of Chicago the right to construct a channel across the butt ends of certain streets and alleys and to remove and replace bridges," passed July 8th, A. D. 1898, approved July 9th, A. D. 1898, are each hereby expressly repealed. All the remaining sections of said above entitled original Ordinance No. 1752 are to be and remain in full force and effect.

SECTION 10. In consideration of the premises, the said City of Joliet in the protection and preservation of its claimed rights arising under or out of the work of the Sanitary District of Chicago in the construction of its Channel as now projected through the said City of Joliet, shall take no action or proceeding, either at law or in equity, the direct and immediate effect or result of which will be to hinder or delay the said Sanitary District of Chicago in the completion of its Channel, and the turning therein of the waters of Lake Michigan at such time and in such manner as it may thereto be legally authorized. This section to continue in force only until the said water shall be turned into said Channel as aforesaid and not thereafter.

SECTION 11. Should it be contended that the construction work of the Sanitary District of Chicago, between Jefferson and Cass Streets, in the City of Joliet, is not adequate to protect the City of Joliet on the east side of said Channel, then such contention shall be submitted to arbitration in the manner hereinabove provided in Section 4 of this ordinance; and should said arbitrators decide that other and additional work is necessary between said points, then it shall be the duty of said arbitrators to find and state the nature, character and locality of said additional work and also to fix the time for its completion, but said time shall not be prior to the turning in of the water by the Sanitary District of Chicago. It is distinctly understood that, should any additional work be required by the said arbitrators as herein provided, no condition or obligation shall be thereby imposed upon the said Sanitary District of Chicago which shall tend to delay or impede the opening of its Channel. In the event of arbitration under this clause, the cost thereof shall be paid as herein above provided.

SECTION 12. This ordinance shall not be in force and effect until first the Sanitary District of Chicago, by ordinance duly enacted, shall first have approved and accepted this ordinance, and shall have filed in the office of the City Clerk of the said City of Joliet a copy, duly certified, of such, approving and accepting ordinance by it enacted.

SECTION 13. No power or authority in this ordinance contained shall be so construed as to delay or impede the opening of the Channel by the Sanitary District of Chicago.

Passed this 17th day of October, A. D. 1899."

REPORT IN REFERENCE TO REMOVAL OF DAMS AT HENRY AND COPPERAS CREEK.

Mr. Wenter, Chairman, presented, and the Clerk read, a report from the Joint Committee on Federal Relations and Engineering in reference to the removal of the State dams at Henry and Copperas Creek in compliance with the requirement of the law; the report recommending that the President of the Board be authorized and directed to appoint a Special Committee of three to remove these dams at the close of navigation for the present year, and who, for that purpose, shall be clothed with full power and authority conferred by law on the Sanitary District.

Mr. Wenter, seconded by Mr. Eckhart, moved that the report be adopted and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—

Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—nine. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT.

"CHICAGO, Oct. 18, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—The Joint Committee on Federal Relations and Engineering begs leave to report that, in pursuance of the action of your Honorable Body (page 5877 of the Proceedings), it has had under consideration the removal of the State dams at Henry and Copperas Creek in compliance with the requirement of law. It seems necessary in order that the Drainage Channel may be opened at the early date now contemplated, that these dams should be removed as promptly as possible after the close of navigation for the present year on the Illinois and Michigan Canal.

Your Committee therefore recommends that the President of the Board of Trustees be authorized and directed to appoint a special committee of three whose duty it shall be to remove these dams at the close of navigation for the present year, and who, for that purpose, shall be clothed with the full power and authority conferred by law upon the Sanitary District of Chicago.

Respectfully submitted,

(Signed) FRANK WENTER,
Chairman.
B. A. ECKHART,
JOS. C. BRADEN,
Z. R. CARTER,
THOMAS A. SMYTH,
A. J. JONES,
THOMAS KELLY,
WM. BOLDENWECK,

Joint Committee on Federal Relations and Engineering."

COMMUNICATION IN REFERENCE TO RELEASE OF BONDS ON CONTRACTS FOR SUPERSTRUCTURE FOR SUMMIT AND LYONS, WILLOW SPRINGS, LEMONT AND ROMEO HIGHWAY BRIDGES CROSSING THE MAIN CHANNEL.

The Clerk presented a communication from the City Trust Safe Deposit and Surety Company of Philadelphia, asking that their suretyship in the matter of the bonds on the contract for the completion of the superstructures for the Summit and Lyons, Willow Springs, Lemont and Romeo Highway bridges be released.

By unanimous consent the communication was referred to the Committee on Finance.

RESOLUTION IN REFERENCE TO INSPECTION OF MAIN CHANNEL BY CONGRESSMEN.

Under the head of new business Mr. Wenter presented, and the Clerk read, the following:

The following is

THE RESOLUTION:

"WHEREAS, The Deep Waterway Convention recently held in Peoria, Illinois, passed resolutions favoring congressional action towards the consummation of a deep waterway from the lakes to the Mississippi River in conjunction with the Canal of the Sanitary District of Chicago; and,

WHEREAS, The next Congress will soon convene; therefore be it

Resolved, That, prior to the convening of the next Congress, a day be set apart, at a time to be fixed by the Joint Committee on Federal Relations and Engineering, to make a tour of inspection of the Canal; and that an invitation be extended to the seven Congressmen of this city, the two United States Senators and the other Congressmen of the state and the executive committee that was appointed by the Peoria Deep Waterway Convention to accompany the Trustees over the route of the Canal; further be it

Resolved, That the Joint Committee on Federal Relations and Engineering have full power to invite such other Congressmen from the adjoining states as they may deem proper so to do; and be it further

Resolved, That the Joint Committee on Federal Relations and Engineering shall have full power to take such steps as it may deem advisable and for the best interests of the Sanitary District to protect and conserve our interests in Washington during the next session of Congress."

Mr. Wenter, seconded by Mr. Braden, moved that the resolution be adopted.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—nine. Nays—none.

Upon this result the President declared the motion carried.

ADJOURNMENT.

On motion of Mr. Kelly, seconded by Mr. Jones, the Board then adjourned.

Joseph F. Haas

Clerk.

PROCEEDINGS

—OF THE—

BOARD OF TRUSTEES

—OF THE—

SANITARY DISTRICT OF CHICAGO.

OCTOBER 25, 1899.

OFFICIAL RECORD.

Published by authority of the Board o Trustees of the Sanitary District of Chicago.

REGULAR MEETING.

The four hundred and sixtieth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Wednesday, October 25, 1899, at 2 o'clock P. M.

On roll-call Messrs. Boldenweck, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—eight members, were present, Mr. Braden arriving subsequently.

President Boldenweck then called the Board to order.

MINUTES.

The minutes of the regular meeting held October 18, 1899, were approved as printed, on motion of Mr. Kelly, seconded by Mr. Jones.

APPOINTMENT OF SPECIAL COMMITTEE FOR REMOVAL OF DAMS AT HENRY AND COPPERAS CREEK.

The President presented, and the Clerk read, a report setting forth that in accordance with the action of the Board at the meeting held October 18, 1899 (page 6084 of the Proceedings). the President had appointed Messrs. Jones, Carter and Braden as the special committee of three for the removal of the dams at Henry and Copperas Creek.

By unanimous consent the report was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, Oct. 25, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Pursuant to the report

of your Joint Committee on Federal Relations and Engineering adopted by your Honorable Body at its meeting held October 18, 1899, recommending that the President appoint a committee of three with full power to have the dams at Henry and Copperas Creek removed as soon as navigation for the present year will close, I hereby appoint as such committee Messrs. Jones, Carter and Braden.

Respectfully submitted,

WM. BOLDENWECK,

President."

VOUCHERS.

The Clerk presented the following vouchers:

GENERAL ACCOUNT.

E. H. Sargent & Co. (streams examination)	$ 2 25	
American Express Company (streams examination)	48 72	
Adams Express Company (streams examination)	37 32	
*United States Express Company (streams examination)	168 45	
*Edwin O. Jordan (streams examination)	384 22	
*Arthur W. Palmer (streams examination)	408 86	
		$ 1,049 82

POLICE DEPARTMENT.

*E. J. Coen (expense)		$ 73 50

*CONSTRUCTION ACCOUNT.

Mason, Hoge, King & Co. (Sec. 8, cleaning tunnel)	$ 74 75	
Sackley & Peterson (Sec. 8, subway)	510 78	
Heldmaier & Neu (Sec. 12, Romeo Bridge)	111 09	
Heldmaier & Neu (Sec. 17, dam, etc.)	186 78	
Heldmaier & Neu (Sec. 17, October 16, 1899)	14,070 87	
Gahan & Byrne (Sec. 18, bridge approach)	268 98	
Gahan & Byrne (Sec. 18, Cass Street subway, etc.)	678 75	
Gahan & Byrne (Sec. 18, Oct. 16, 1899)	23,499 88	
The J. G. Wagner Company (Sec. 18, Jefferson Street Bridge)	503 12	
Griffiths & McDermott (By-pass readway, etc)	1,865 21	
Joseph F. Haas, Clerk (concreting clay pockets)	1,857 84	
The Union Switch and Signal Company (interlocking switch changes)	408 54	
C. T. T. R. R. Co. (Sec. E, Bridge)	102 36	
C. T. T. R. R. Co. (Sec. O, Pan Handle Bridge)	254 99	
C. T. T. R. R. Co. (Chicago River Bridge)	10,787 70	
The P. C. C. & St. L. Ry. Co. (Sec. O, Pan Handle Bridge)	10,258 36	
Illinois Central Railroad Company, Lessee (track changes)	3,149 99	
The A., T. & S. F. Ry. Co. (track deviation)	3,007 23	
Francis Beidler & Co. (Sec. O, Pan Handle Bridge)	11 63	
Peter Petersen (Sec. N, C. M. & N. Bridge)	28 00	
The Joliet Bridge and Iron Company (Wire Mills Road Bridge)	75 00	
Vilas Bros. (paints, Regulating Works)	116 85	
Werden Buck (concreting clay pockets)	283 40	
Fred Boehme (concreting clay pockets)	308 13	
Shepard Stone Company (concreting clay pockets)	608 04	
The Canal Commissioners (concreting clay pockets)	56 00	
The Canal Commissioners (use of dredge)	1,420 00	
Isham Randolph (Jefferson Street Bridge)	67 04	
Isham Randolph (Sec. O, pumps)	91 00	
Isham Randolph (Sec. O, Pan Handle Bridge)	104 73	
		$74,766 99
Grand total		$75,890 31

*To be paid by warrants, with interest coupons attached, drawn against the Tax Levy for 1899.

Mr. Wenter, seconded by Mr. Carter, moved that the vouchers, as read and shown above, be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—eight. Nays—none.

Upon this result the President declared the motion carried.

MONTHLY REPORT FROM LAW DEPARTMENT.

The Clerk presented a report from the Law Department for the month of September, 1899, which, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT.

"CHICAGO, October 17, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I have the honor to transmit the report of the Law Department for the month of September, 1899.

The following are the expenses of the Law Department.

SALARIES.

Attorneys	$ 1,366 68	
Office force	435 00	
		$ 1,801 68

GENERAL EXPENSES.

Court costs	$ 112 30	
Right of way (salaries)	125 00	
Expense account	53 38	
Books and stationery	52 00	
		$ 342 68
Total		$ 2,144 36

During the month the Board of Review of Will County, after a session of nearly two months duration, rendered a decision on the protest of the Attorneys for the Sanitary District in the matter of the assessments on the District's right of way in the several townships. The decision was favorable to the District in every township, though the Board raised the figures of the Assessors in several instances, notably so in Lockport Township. The decision of the Board resulted in a net reduction of nearly twelve per cent on the assessed valuation as returned by the Assessors, and is summarized as follows:

Township.	*Assessors Valuation.*	*Bd. of Rev. Valuation.*	*Decrease:*
Du Page	$ 7,792 00	$ 6,897 00	$ 895 00
Lockport	18,488 00	18,125 00	363 00
Joliet	33,755 00	27,945 00	5,810 00
Total	$60,035 00	$52,967 00	$ 7,068 00

The above is the actual value placed on our right of way, it being one-fifth of the market value as fixed by the Assessors and the Board of Review. The technical descriptions have been eliminated from the books of the Assessors; the property of the Sanitary District being described as "The Right of Way."

The following suits were begun during the month:

McMahon & Montgomery Company, Green's Dredging Company, et al., vs. The Sanitary District of Chicago, Gen. No. 198,939, in the Circuit Court of Cook County. This is an assumpsit suit for $200,000.00—presumably for extras on the Chicago River.

The Sanitary District of Chicago vs. John B. Mount, The City of Joliet, et al., in the Circuit Court of Will County. This is a bill for an injunction, which was granted, restraining the defendants from interfering with the removal of the bridges across the Desplaines River at Cass and Jefferson Streets.

The case Wright, Meysenburg, Sinclair & Carry vs. The Sanitary District of Chicago, Calendar No. 196, before Judge Kavanagh, was reached for trial and passed on stipulation to be taken up on ten days' notice.

In the cases of The People of the State of Illinois vs. Joseph Murray and William A. Vail, Nos. 23894 and 23895, respectively, in the Circuit Court of Kane County, the indictments were quashed. These were criminal cases growing out of the contempt proceedings in the condemnation cases of The Sanitary District of Chicago vs. Lina E. Barstow, et al., in the Circuit Court of Will County.

In the case of John Angus vs. George A. Gindele, No. 165190, in the Circuit Court of Cook County, a petition was filed by the receiver of Angus & Gindele to restrain the Sanitary District from removing certain railroad iron on Section E, which the receiver claimed as the property of Angus & Gindele. A rule was

also entered requiring the Trustees of the District to show cause why they should not be fined for contempt of court for interfering with the possession of the receiver. An answer was filed on behalf of the Trustees to the above rule and the cause referred to a Master in Chancery to take evidence and report conclusions.

An agreement with the City of Chicago with reference to the bridge at Canal Street was prepared; also several drafts and amendments to ordinances to be passed by the City of Joliet.

During the month a great many opinions have been prepared and submitted to the Board of Trustees and the several committees.

The present month will be occupied in the preparation of contracts and opinions, attending to the several injunction suits in Will and Cook Counties, and the general routine work of the office.

Very respectfully,

(Signed) CHARLES C. GILBERT,

Attorney."

PAYMENT OF MATURING BONDS AND INTEREST.

Mr. Carter, Chairman of the Committee on Finance, presented, and the Clerk read, an order that the Clerk be instructed to draw a warrant to the order of the Treasurer in the sum of one hundred and thirty five thousand dollars, to be used in the payment of interest and bonds of the first issue, maturing November 1, 1899, as provided in the order.

Mr. Carter, seconded by Mr. Wenter, moved that the order be adopted.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Carter, Eckhart, Jones, Kelly, Mallette Smyth and Wenter—eight. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE ORDER:

"*Ordered*, That the Clerk be, and he is hereby, instructed to draw a warrant payable to the order of the Treasurer for the sum of one hundred and thirty-five thousand ($135,000) dollars to pay the installment of one hundred thousand ($100,000) dollars of the first issue of bonds of the Sanitary District of Chicago (being the seventh payment thereon), falling due November 1, 1899, and to pay the sum of thirty-five thousand ($35,000) dollars semi-annual interest on balance of first issue of bonds of the Sanitary District of Chicago outstanding, being one million four hundred thousand ($1,400,000) dollars at the rate of five per centum per annum, and that the Treasurer be, and he is hereby, authorized and directed to pay said installment of bonds falling due as aforesaid and the said semi-annual interest upon proper presentation and cancellation of the bonds and coupons, respectively, evidencing the same; such payments to be charged to their proper respective accounts."

PAYMENT OF RENTAL UNDER AGREEMENT WITH PENNSYLVANIA COMPANY FOR BY-PASS ALONG CHICAGO RIVER.

Mr. Carter presented and, seconded by Mr. Eckhart, moved the adoption of the following

ORDER:

"*Ordered*, That the President and Clerk of the District be and they are hereby authorized and directed to pay, upon the voucher of the Attorney of the District, to the Pennsylvania Company, operating the Pittsburgh, Fort Wayne and Chicago Railway, the sum of fifteen hundred ($1,500.00) dollars, said sum being the semi-annual payment of rent due November 1, A. D. 1899, pursuant to an agreement heretofore made with the Sanitary District of Chicago (page 4573 of Proceedings), said payment to be charged to the Land Account of the District."

On roll-call, on the motion for the adoption of the order, the vote stood: Yeas—Messrs. Boldenweck. Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—eight. Nays—none.

Upon this result the President declared the motion carried.

ADJOURNMENT.

On motion of Mr. Carter, seconded by Mr. Kelly, the Board then adjourned.

Joseph F. Haas

Clerk.

PROCEEDINGS

—OF THE—

BOARD OF TRUSTEES

—OF THE—

SANITARY DISTRICT OF CHICAGO.

NOVEMBER 1, 1899.

OFFICIAL RECORD

Published by authority of the Board of Trustees o the Sanitary District of Chicago.

REGULAR MEETING.

The four hundred and sixty-first regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Wednesday, November 1, 1899, at 2 o'clock P. M.

On roll-call Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—nine members, were present.

President Boldenweck then called the Board to order.

MINUTES.

The minutes of the regular meeting, held October 25, 1899, were approved as printed, on motion of Mr. Kelly, seconded by Mr. Mallette.

VOUCHERS.

The Clerk presented the following vouchers :

*PAY ROLLS.

Engineering Department (Chief Engineer's roll, October, 1899).....	$ 1,250 00
Engineering Department (Division of Construction roll, October, 1899)	7,499 54
Engineering Department (Division of Drafting and Designing roll, October, 1899).....	2,645 68

Engineering Department (Division of Records roll, October, 1899)	$ 697 50	
Engineering Department (Dischargemen's roll, October, 1899)	171 00	
		$ 12,263 72
Clerical Department (Clerk's roll, October, 1899)		1,068 34
Law Department (Attorney's roll, October, 1899)	$ 1,468 34	
Law Department (Joliet roll, October, 1899)	458 34	
		$ 1,926 68
Treasury Department (Treasurer's roll, October, 1899)		166 67
General Account (General roll, October, 1899)	$ 425 00	
General Account (Special roll, October, 1899)	106 00	
General Account (Streams Examination roll, October, 1899)	135 00	
General Account (Trustees' roll, October, 1899)	2,333 34	
		$ 2,999 34
Maintenance Account (Pumping Plant roll, October, 1899)		843 75
Police Department (Marshal's roll, October, 1899)		2,637 70
Total		$ 21,906 20

*ENGINEERING DEPARTMENT.

J. R. Davis & Son (boring test pits)	$ 140 00	
The Canal Commissioners (laboratory inspection)	852 70	
		$ 992 70

CLERICAL DEPARTMENT.

A. P. Little (carbon paper)	$ 4 00	
Wm. Zeuch & Co. (envelopes)	9 00	
		$ 13 00

GENERAL ACCOUNT.

The Inter Ocean (publishing call for warrants)	$ 1 20	
The Chicago Times-Herald (publishing call for warrants)	1 60	
The Chicago Chronicle Company (publishing call for warrants)	2 00	
Chicago Journal (publishing call for warrants)	2 10	
The Chicago Daily News Company (publishing call for warrants)	2 40	
Tribune Company (publishing call for warrants)	2 40	
Kehm, Feitsch & Miller Company (printing)	18 00	
A. B. Dick & Co. (mimeograph)	30 00	
H. Lewis & Co. (paints, etc.)	13 88	
Koch & Lee Company (supplies)	33 77	
Zuttermeister Ice Company (ice)	20 88	
W. H. Wallace (demurrage)	4 00	
*M. J. Hogan (demurrage)	55 00	
*The A., T. & S. F. Ry. Co. (train service)	200 00	
		$ 387 23

POLICE DEPARTMENT.

W. L. Felkner (expense)		$ 11 85

*CONSTRUCTION ACCOUNT.

Mason, Hoge, King & Co. (Sec. 8, railroad embankment)	$ 1,428 16	
Lydon & Drews Company (Chicago River improvement)	2,759 75	
Lydon & Drews Company (filling Lake Front Park)	2,656 00	
		$ 6,843 91
Grand total		$ 30,154 89

*To be paid by warrants, with interest coupons attached, drawn against the Tax Levy for 1899.

Mr. Carter, seconded by Mr. Wenter, moved that the vouchers, as read and shown above, be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones (*except as to voucher in favor of The Canal Commissioners for $852.70, on which he voted nay*), Kelly, Mallette and Wenter—eight (*except as above stated.*) Nays—none (*except as above stated.*)

Upon this result the President declared the motion carried.

REQUISITION.

The Clerk presented the following requisition:

No. 1101, General Account (3,000 copies Revised History and cuts for same).....$190 00

Mr. Wenter, seconded by Mr. Jones moved that Requisition No. 1101, as read and shown above, be allowed.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette and Wenter—eight. Nays—none.

Upon this result the President declared the motion carried.

MONTHLY REPORT ON EMPLOYES.

The Clerk presented a report showing the number of persons in the employ of the District for the month ending October 31, 1899, which was read, and by unanimous consent was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, November 1, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the month ending October 31, 1899, as the same have been reported to me:

Engineering department	95
Maintenance Account	9
Clerical department	5
Law department	8
Treasury department	1
Police department	28
General	5
Total employes	151

Respectfully submitted,

(Signed) JOSEPH F. HAAS,
Clerk."

REPORT IN REFERENCE TO RETURN OF CERTAIN MONEYS TO TREASURER.

The Clerk presented a report transmitting receipts from the Treasurer of the District for the return of certain moneys, as set forth in the report, which, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, November 1, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I herewith report to your Honorable Body that I have re-deposited with the Treasurer of the District, for credit of the proper account, the sum of two and fifty one-hundredths dollars for account of cash envelope No. 19, in favor of Wm. Coogan, from pay-roll voucher No. 9019, the same never having been called for by said Coogan and his present location being unknown; and have also re-deposited with the Treasurer the sum of fifteen dollars for credit of its proper account, the same being balance remaining unpaid on account of envelope No. 41, in favor of R. Barnhill, from pay-roll voucher No. 728, said Barnhill having left the service of the District before the end of the month and after the pay-roll had been made out and approved for the full month. I therefore herewith transmit receipts from Treasurer for above amounts.

Respectfully submitted,

(Signed) JOSEPH F. HAAS,
Clerk."

(Two enclosures).

MONTHLY REPORT FROM ENGINEERING DEPARTMENT.

The Clerk presented a report from the Engineering Department for the month of September, 1899, which, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT.

"CHICAGO, Oct. 28, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I herewith transmit the report of the Engineering Department for the month of September, 1899, giving the detailed operations of the several divisions of same.

The value of the construction work done was $306,980.48, divided as follows: Main Channel, $191,962.71; bridges, $115,017.77. The engineering expenses were $14.483.60, divided as follows: Salaries, $12,332.16; supplies, etc., $2,-151.44.

DIVISION OF CONSTRUCTION.

The weather on the Corwith division during the month was not very favorable for good progress on account of frequent rainfalls. Rain was recorded on seven days and the temperature varied between 38 and 97 degrees Fahrenheit. The weather on the Lockport and Joliet divisions was more favorable for work and fairly good progress was made thereon.

Chicago River—The contractors for the substructure of the By-pass have completed 81.6 per cent of the work. If this rate of progress is continued this contract should be completed by November 15th. The average number of men employed per day was 120.4 for the thirty days and 138 men, excluding Sundays; 6,400 cubic yards of excavation were removed; 208,000 feet B. M. of timber were used; 2,600 lineal feet of piles were driven and 100 cubic yards of concrete were put in place. The temporary roadway was practically completed and 98 per cent of the coffer dams was finished. About 600 lineal feet of coping were set on the walls, of which 66 per cent has been completed.

The contractors for the superstructure of the By-pass had practically completed the Adams Street section at the end of the month, and had installed eleven of the large girders on the Jackson Street By-pass; 553 cubic yards of concrete were put in place. The work consisted principally of concreting, setting of girders and painting the iron work.

The contractors for the dredging of the river removed 9,800 cubic yards of material during the first part of the month. No work was done after the 15th on account of the controversy with the City of Chicago in regard to the dumping of material.

At the Taylor Street Bridge all foundations are in and the concrete at the west main abutment is built up to where the cut stone begins. The excavation is completed and twenty foundation piles are in the east main abutment.

At the C. T. T. R. R. Co.'s Bridge near Taylor Street, the old abutment is removed and the excavation on the west is ready for the coffer dam.

At the east side the old abutment is blown up and the contractor is ready to begin excavation.

Section "O"—The excavation of the old C., M. & N. R. R. Co.'s bank was continued all month with a scraper force, and 5,153 cubic yards of glacial drift were removed from it. Work was continued day and night removing material from the full width channel at the site of the Eight-Track Bridge, and 12,154 cubic yards of glacial drift were taken out. Some repairs were made to the Pan Handle temporary trestles by Geo. M. Huss, and the several railroad companies using same.

Portland cement in sacks was stored in the new warehouse at Robey Street as it arrived in cars, and from that point was furnished the contractors for the Eight-Track Bridge as required; 3,165 barrels were received during the month, and 1,170 barrels were furnished the contractor. Excavation from this bridge pit, outside of the channel prism, was continued day and night throughout the month, and 8,660 cubic yards of glacial drift were removed. The laying of concrete for foundation of the north abutment was begun on the 16th and continued with interruptions to the end of the month, at which time five courses were completed and 147 cubic yards were vouchered. Excavation for the south abutment had advanced to —8 C. C. D. at the end of the month; derricks were set up over the pier pits and excavation for both piers was carried on day and night. One thousand four hundred and eighty lineal feet of piles were removed from the bridge pit during the month. The building of the new dam mentioned in last report was continued, first by scraper force and later on by wheelbarrow gang and one-horse carts. On the 30th several scow loads of material excavated by dredge from the river near Robey Street were dumped in line of this dam.

The pumping plant on this section was dismantled; boilers, etc., were loaded on railroad cars and returned to the parties rented from, and pumps and other belongings were stored in and near the cement warehouse.

Section "N"—The new shovel which was put in the pit at the east end of this section worked four days loading trains of cars hauled by steam locomotives. On the 12th this shovel started operations in connection with newly erected incline, and from the 16th to the end of the

month this plant worked day and night shifts. Up to the 25th, 2,228 cubic yards of glacial drift had been removed by this method. Excavation under the old Kedzie Avenue Bridge was continued with a wagon force during the entire month. The amount of glacial drift excavated between August 1st and September 30th was 6,130 cubic yards, and the cost of said work is about 88.8 cents per cubic yard. The shovel and incline plant west of Kedzie Avenue continued work during the entire month, working 14 night shifts in addition to the day shifts. A force of about five scraper teams worked 12 days in the forepart of the month removing the bank under the former Santa Fe Temporary Bridge; 28,192 cubic yards of glacial drift were removed by the shovel and incline plant and teams combined.

A large force of men in the employ of the I. C. R. R. Co. was at work almost the entire month on the new location of the C., M. & N. R. R. Co.'s tracks west of Kedzie Avenue.

The Santa Fe Railway Company did some work on its new Twenty-sixth Street line tracks.

Section "M"—The pumping plant on this section continued work, with interruptions, to about the 11th, when the water on Sections "M" and "L" stood about 2.6 feet above grade. Owing to the inability of the 20-inch pump to pump any more water, a 10 inch pump from Hayes Bros. was put in position and began operations on the 26th, continuing to the end of the month.

Sections "L" and "K"—Excavation of the Main Channel under the old Belt roadbed was continued throughout the month with a scraper force, night work having been discontinued on the 3rd. The amount of glacial drift excavated was 6,479 cubic yards.

Work on the substructure of the Belt Railway Company of Chicago's Bridge was started on the 11th with a few scrapers excavating for the south abutment; 500 cubic yards were removed and 6,400 lineal feet of piling were delivered at the site of the work. A derrick with steam hoist was erected over the south abutment pit.

Sections "K," "I" and "H"—The work of cutting through the bank holding the back water on these three sections proved more difficult than was anticipated, but the work is continuing as fast as possible. At the end of the month water was still nine feet above grade.

Sections "H" and "G"—The scraper force on these sections continued work the entire month, most of the time being employed in cutting the ditch to let out the water from the upper sections. The shovel and incline plant continued work all month in day and night shifts, except when hindered by the flow of water through the ditch. Twenty-one thousand three hundred and seventeen cubic yards of glacial drift were removed from Section "H," Section "G" being practically completed.

Section "F"—Halvorson, Richards & Co. erected a board fence on both sides of the approach to the Lyons-Summit Road Bridge over the Main Channel.

Section "E"—The removal of the dam between Sections "E" and "D" was continued and completed on the 20th. The removal of the plant used on this section was continued throughout the month and nearly completed.

Work on the substructure of the C. T. T. R. R. Co.'s Bridge over the Desplaines River was continued and completed with the exception of the masonry of the north abutment. The quantities vouchered were as follows: Excavation, 100 cubic yards; masonry, 40 cubic yards; old masonry removed, 21 cubic yards. The work on the superstructure of this bridge was carried on all month. The new 105-feet span was practically finished, leaving nothing to be done but the repairing of the old span.

Section 8 — The excavation of solid rock in the Main Channel was continued throughout the month. During the latter portion of the month an increased force was used, consisting of an average of forty-seven laborers during the day and about twenty at night. One cable incline hoist and one derrick was used in handling material, and car teams hauled the same to the dumping ground. Two steam drills and one channeler were also in use; 3,000 cubic yards of material were removed.

The A., T. & S. F. Ry. Co. had a gang of about fifty men the greater portion of the month engaged in grading and placing gravel on its new change of line through Lemont. A small force was also engaged in building temporary trestle over the subway at Stephens Street. The contractors on regular construction of embankment had a small force of men a portion of the month widening the embankment west of the Santa Fe Bridge and east of Stephens Street.

Excavation for foundations for the abutments for the Stephens Street Sub-

way was finished and the work of concreting was begun. The abutments for the west track were completed about the 20th. A force of twenty-five men and five teams was engaged daily in the excavation of the subway from the 16th to the 25th inst. Amount of work done was as follows: Excavation, 700 cubic yards; Portland cement concrete, 288 cubic yards.

Section 12—A force varying from 20 to 50 men was engaged throughout the month in the work of excavating and concreting the clay pockets on this section. Four derricks were installed, excavation completed on three pockets and partly done on several others. Three pockets were finished up to the 30th and involved the placing of about 436 cubic yards of concrete.

Section 14—With the exception of the 16th, 17th and 20th—when both pumps were in operation—but one pump was run during the month. The gauge at the end of the month stood at .6 above grade, being at an elevation of —29.2 C. C. D.

Section 16—An increased force over that reported last month was engaged on this section, an average of 20 teams and 90 laborers being engaged daily. The work of excavation was carried on most of the time in the vicinity of the Regulating Works. One channeler and two drills were run a portion of the time in double shifts. The excavated material was placed on one-yard cars and hauled to destination by car teams, the greater portion being placed in embankment. Work was prosecuted on twenty-four days and 14,300 cubic yards of material were excavated.

A gang of 16 laborers and 4 teams was engaged the greater portion of the month placing broken stone on the Wire Mills road.

Section 17—Work on this section was carried on day and night with but little interruption, and a large force of men was engaged thereon. The machinery used in the new river channel consisted of 1 large derrick, 1 steam shovel, 1 steam hoist, 7 drills and 2 locomotives. A dredge employed in the Upper Basin the first half of the month was supplemented by a second during the last half. The machinery used in the tail race consisted of 2 derricks, 1 steam hoist, 3 channelers, 2 drills and 1 locomotive. The quantities vouchered for this section are as follows: Excavation solid rock, 22,500 cubic yards; excavation earth, 10,500 cubic yards; excavation tail race, 7,400 cubic yards; rip rapping, 2,000 cubic yards; completion of cribbing, 268,000 feet, B. M.; sinking and filling crib, 5,300 cubic yards; raising tow-path, 1,800 cubic yards.

Section 18—The work of excavating the dam and conduit on this section continued to the 15th, and 100 per cent of the foundation for the dam and 95 per cent of the excavation for the conduit were completed. The placing of concrete for this work was carried on from the 1st to the 4th and from the 11th to the 19th, at which latter time the entire dam was completed, along with 93 per cent of the conduit. Only the invert of the conduit remains to be done. Average number of men employed on excavation, 13; on concrete, 50. Work on the tail race was continued throughout the month with the following plant: Two derricks, 1 hoist engine for cars and 1 channeler, the last named having been added to the plant on the 29th. The average number of men employed on this work was 56. The work of building coffer dams was continued from the 1st to the 12th. A large pump was installed on the 11th and the water is now taken care of in the river. Concrete was placed from the 13th to the end of the month, the work of excavation going on ahead. The concrete work in the wall at Jefferson Street began on the 29th. Average number of men employed on excavation 20; on concrete 45. The car plant on the Main Channel work north and south of Jefferson Street, and the channel south of Jefferson Street is practically completed. A double force is working in rock and earth, wasting material on the east side of the Main Channel north of Cass Street. One new derrick was added to this plant and put in operation on the 13th. Average number of men employed on car plant, 86; on wasting, 122. The material from the Main Channel was placed in the levee south of McDonough Street Bridge. The material from the old Dam No. 1, the dam and conduit, and retaining wall excavation was placed in the Illinois and Michigan Canal rip rap work. Work was continued night and day on the Jefferson Street Temporary Bridge from the 1st to the 9th and from the 20th to the 23d, at which latter time all the connections with street ends were made and the structure opened to all traffic. The work of demolishing the old Jefferson Street Bridge was begun on the 22d and continued to the end of the month.

Concrete was placed the greater part of the month in the abutment and pier

of the C., R. I. & P. R. R. Co,'s Bridge substructure.

Owing to a strike on this section, the entire force was reduced about two-thirds. It was of short duration, however, and soon increased to its full number. The average number of men employed on the entire section during the month was 318, and the average number of teams 12. About 60 per cent of the entire work is completed.

DIVISION OF DRAFTING AND DESIGNING.

The regular platting was continued on the contour maps between Lockport and Willow Springs, the 50-feet scale maps of the Chicago River and the atlas of the right of way. Work was done on the maps to be used in constructing the relief map of the Main Channel. Some work was also done on the construction progress chart.

The following drawings, etc., were made: Plan of Stephens Street subway at Lemont; plan showing temporary tracks of the Belt Railway Company of Chicago.

In the Bridge Department office the greater part of the time was spent on the plans of the temporary work at the Jefferson Street Bridge. Some time was also spent on the plans of the temporary work at the Pan Handle, the Belt and the Van Buren Street Bridges.

The work of this branch of the office force, exclusive of the Bridge and Drafting Departments, was a continuation of its former work, with the exception that some time was given to the detail work on plans of the Joliet project.

DIVISION OF RECORDS.

The work of this Division has been carried on in the usual manner.

I estimate the expenses of this Department for the month of October will be $300,000.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,

Chief Engineer."

SANITARY DISTRICT OF CHICAGO—ENGINEERING DEPARTMENT.

CLASSIFIED STATEMENT OF EXPENDITURES DURING THE MONTH OF SEPTEMBER, 1899.

Classification.	Engineering Expenses.			Construction.
	Salaries.	Supplies, Etc.	Total.	
Maps and Plans for General Use	$ 337 70	$ 5 06	$ 342 76	.....
Chicago River Survey	95 00	.....	95 00	.....
Chicago River Improvement	2,066 25	135 49	2,201 74	$61,525 62
Right of Way	200 40	.....	200 40	.....
Flood Measurements	35 00	10 00	45 00	.....
Disposal Works and Joliet Project	2,725 58	1,567 10	4,292 68	76,566 17
Regular Construction—Main Channel and River Diversion	1,708 61	93 20	1,801 81	88,035 72
Wire Mills Permanent Bridge over Main Channel, Sec. 16	.....	.....	.....	413 44
Lockport Road Permanent Bridge over Main Channel, Sec. 16	.....	.....	.....	303 10
Romeo Road Permanent Bridge over Main Channel, Sec. 12	10 00	3 72	13 72	.....
Romeo Road Temporary Bridge over Main Channel, Sec. 12	.....	.....	.....	—50 00
A., T. & S. Fe Ry. Co.'s Per. Bridge over Main Channel, and track deviation and Stephen St. subway, Sec. 8	367 24	41 64	408 88	6,495 68
C. T. T. R. R. Co.'s Temporary Bridge over Main Channel, Sec. E	35 00	4 15	39 15	.....
C. T. T. R. R. Co.'s Permanent Bridge over Main Channel, Sec. E	152 00	8 00	160 00	.....
C. T. T. R. R. Co.'s Permanent Bridge over Desplaines River, Sec. E	20 00	55 04	75 04	364 22
Lyons-Summit Road Permanent Bridge and roadway over Main Channel, Sec. F	.....	.....	.....	44 41
Lyons-Summit Road Permanent Bridge over Desplaines River, Sec. E	.....	.....	.....	220 82
Belt Railway of Chicago's Temporary Bridge over Main Channel, Sec. K	197 50	11 35	208 85	136 02
Belt Railway of Chicago's Permanent Bridge over Main Channel, Sec. K	180 00	11 38	191 38	1,002 88
Pumping Plant, Sec. M	450 00	8 26	458 26	893 92
A., T. & S. Fe Ry. Co.'s Permanent Bridge over Main Channel and track deviation, Sec. N	40 00	.....	40 00	547 60
C., M. & N. R. R. Co.'s Permanent Bridges over M. C. and Kedzie Avenue and track deviation, Sec. N	80 00	13	80 13	7,668 08

Panhandle Temporary Bridges over Main Channel, Sec. O.	245 00	15 61	260 61	4,925 51
Panhandle Permanent Bridge over Main Channel, Sec. O.	1,095 00	34 13	1,129 13	64,008 05
Pumping Plant, Sec. O.	40 00	3 46	43 46	364 06
Taylor Street Bridge over Chicago River	391 25	6 52	397 77	6,880 34
C. T. T. R. R. Co.'s Bridge over Chicago River	378 75	5 00	383 75	8,696 41
Tow Path Permanent Bridge, Sec. 17	20 00	8 39	28 39	.....
Jefferson Street Temporary Bridge, Sec. 18	290 00	48	290 48	1,531 25
Jefferson Street Permanent Bridge, Sec. 18	170 00	10 58	180 58	.....
Cass Street Permanent Bridge, Sec. 18	40 00	9 02	49 02	.....
Canal Street Bridge over Chicago River	.....	24	24	.....
C., R. I. & P. R. R. Co.'s Temporary Bridge, Sec. 18	.....	.....	.....	1,099 11
C., R. I. & P. R. R. Co.'s Permanent Bridge, Sec. 18	125 00	48	125 48	2,800 00
Mortar, Sand and Cement Tests	686 88	44 49	731 37	.....
Photographs of Works	150 00	58 52	208 52	.....
Totals	$12,332 16	$2,151 44	$14,483 60	$ 284,562 41

VALUES— STATEMENT SHOWING CONDITION

Designation.	Amount earned during Sept., 1899.				Amount earned to date.			
	Main Channel.	Bridges.	General.	Total.	Main Channel.	River Diversion.	Bridges.	Gen
Chicago River Imp'ment	$64,124 33			$64,124 33	$ 448,869 39			
O	13,106 91	$ 4,962 51		18,068 52	386,585 35		$ 96,532 82	
N	9,423 67			9,423 67	235,906 30		3,525 02	
M.	893 92			893 92	160,964 44			
L					217,287 06			
K	3,829 48	136 02		3,965 50	301,811 12		7,648 13	
I.					239,846 00			
H	6,181 93			6,181 93	310,916 05			
G					398,638 40			
F					341,404 40	75,627 73		
E	493 10			493 10	753,425 37	29,091 91	15,673 34	
D					592,039 29	2,880 54		
C.					443,342 59	40,135 18		
B					438,986 42	59,451 34		
A					801,584 08	115,741 73		
1.					1,210,660 37	143,906 29	1,912 00	
2.					377,695 00	63,190 86		
3.					840,952 93	338 42		
4.					975,248 98	83,304 43		
5.					749,207 28	6,653 64		
6.	1,269 35			1,269 35	689,104 96	55,911 37		
7.					722,544 74	66,193 19		
8.	3,000 00			3,000 00	892,817 26	89,683 90	19,853 69	
9.					794,838 28	23,573 72	1,012 30	
10.					921,454 79	78,729 58		
11.					797,717 50	43,854 42		
12.	3,516 02	—50 00		3,466 02	841,176 71	21,768 52	1,086 87	
13.					819,388 19			
14					931,457 10			
15.					551,915 85	117 61		
16.	5,577 00			5,577 00	65,296 66		1,500 00	
17.	36,118 00			36,118 00	322,512 18			
18.	43,619 90	2,849 11		46,469 01	227,709 83		12,405 53	
Disposal Wks. at Lockp't	815 00			815 00	262,565 67			
Repairing I. & M. Canal.								18,6
Van Buren St. Approach Span, Chicago River...							4,050 00	
Taylor St. Br. over Chicago River		7,863 25		7,863 25			24,783 39	
C. T. T. R. R. Co.'s Br. over Chicago River....		9,260 41		9,260 41			65,006 68	
S. W. Blvd. Br., over M. C., Sec. O							149,962 42	
Pan Handle Br., over M. C., Sec. O		69,093 55		69,093 55			163,540 89	
C.,M. & N. R. R. Co.'s Br., over M. C., Sec. N,....		7,668 08		7,668 08			167,802 75	
C.,M. & N. R. R. Co.'s Br, over Kedzie Av., Sec. N							14,515 47	
Kedzie Av. Br., over M. C., Sec. N							43,118 58	
A., T. & S. F. Ry. Co.'s Br., over M. C., Sec. N.		547 60		547 60			80,448 38	
Belt Ry. Br. over M. C., Sec. K		1,249 00		1,249 00			1,249 00	
A., T. & S. F. Ry. Co.'s Br., over M. C., Sec. G.							114,305 72	
A., T. & S. F. Ry. Co.'s Br., over D. R., Sec. F.							19,210 73	
Lyons-Summit Road Br., over D. R., Sec. E.....		48 75		48 75			13,290 47	
Lyons-Summit Road Br., over M. C., Sec. F.....		44 41		44 41			41,193 18	
C. T. T. R. R. Co.'s Br., over M. C., Sec. E.....							50,652 75	
C. T. T. R. R. Co.'s Br., over D. R., Sec. E.....		416 25		416 25			10,139 55	
Willow Spgs. Highway Br., over M. C., Sec. 1							22,966 52	
A., T. & S. F. Ry. Co.'s Br. and Stephen Street Subway over M. C., Sec. 8		6,909 93		6,909 93			113,997 86	
A., T. & S. F. Ry. Co,'s Br., over D. R., Sec. 8.							23,275 07	
Lemont Highway Br., over M. C., Sec. 8.....							21,227 39	

CONSTRUCTION CONTRACTS. OCTOBER 1, 1899.

Total.	Amount Paid to Date.	REMAINING TO BE EARNED.			REMAINING TO BE PAID ON VOUCHERS.		
		Main Channel.	Bridges.	Total.	Retained Percentages.	Unpaid Vouchers.	Total.
$ 448,869 39	$ 403,025 49	$ 80,225 96	.....	$ 80,225 96	$ 31,096 90	$ 14,747 00	$ 45,843 90
483,118 17	471,288 11	37,650 00	.....	37,650 00	7,846 37	3,983 69	11,830 06
239,431 32	223,868 92	21,087 62	.....	21,087 62	13,372 80	2,189 60	15,562 40
160,964 44	160,585 54	.....	.....	.....	.....	378 90	378 90
217,287 06	217,287 06	2,287 45	.....	2,287 45	.....	.....	.....
309,459 25	306,634 70	2,842 57	.....	2,842 57	2,072 08	752 47	2,824 55
289,846 00	289,846 00	.....	.....	.....	.....	.....	.....
310,916 05	308,332 15	7,995 59	.....	7,995 59	.....	2,583 90	2,583 90
398,638 40	398,638 40	64 68	.....	64 68	.....	.....	.....
417,082 13	375,082 00	.....	.....	.....	34,103 38	7,846 75	41,950 13
798,450 62	693,021 40	29 58	.....	29 58	97,406 83	8,022 39	105,429 22
594,919 83	594,919 83	.....	.....	.....	.....	.....	.....
484,259 40	484,259 40	.....	.....	.....	.....	.....	.....
498,587 76	498,587 76	.....	.....	.....	.....	.....	.....
917,325 81	917,325 81	.....	.....	.....	.....	.....	.....
1,356,510 66	1,349,615 00	.....	.....	.....	6,179 83	715 83	6,895 66
940,975 86	940,975 86	.....	.....	.....	.....	.....	.....
841,291 35	841,291 35	.....	.....	.....	.....	.....	.....
1,058,638 66	1,058,638 66	.....	.....	.....	.....	.....	.....
755,860 92	755,860 92	.....	.....	.....	.....	.....	.....
745,016 33	745,016 33	.....	.....	.....	.....	.....	.....
797,495 93	797,495 93	.....	.....	.....	.....	.....	.....
1,004,935 11	1,000,950 74	10,172 00	.....	10,172 00	808 12	3,176 25	3,984 37
819,424 30	819,424 30	.....	.....	.....	.....	.....	.....
1,009,136 70	1,009,136 70	.....	.....	.....	.....	.....	.....
841,571 92	841,571 92	.....	.....	.....	.....	.....	.....
864,032 10	860,516 08	11,483 98	.....	11,483 98	.....	3,516 02	3,516 02
819,388 19	819,388 19	15,000 00	.....	15,000 00	.....	.....	.....
931,457 10	931,457 10	.....	.....	.....	.....	.....	.....
552,033 46	552,033 46	.....	.....	.....	.....	.....	.....
66,796 66	53,938 84	526 50	.....	526 50	7,977 94	4,879 88	12,857 82
322,512 18	273,412 20	144,363 85	.....	144,363 85	31,182 28	17,917 70	49,099 98
240,115 36	191,436 84	181,160 10	.....	181,160 10	27,712 63	20,965 89	48,678 52
262,565 67	261,750 67	.....	.....	.....	.....	815 00	815 00
18,052 85	18,052 85	.....	.....	.....	.....	.....	.....
4,050 00	4,050 00	.....	15,445 87	15,445 87	.....	.....	.....
24,783 39	19,571 89	.....	58,923 47	58,923 47	1,514 59	3,696 91	5,211 50
65,006 68	55,746 27	.....	274,461 99	274,461 99	.....	8,696 41	8,696 41
149,962 42	145,734 20	.....	6,000 00	6,000 00	4,228 22	.....	4,228 22
163,540 89	111,764 47	.....	383,097 24	383,097 24	6,730 50	45,045 92	51,776 42
167,802 75	163,416 33	.....	.....	.....	.....	4,386 42	4,386 42
14,515 47	14,515 47	.....	.....	.....	.....	.....	.....
43,118 58	43,118 58	.....	.....	.....	.....	.....	.....
80,448 38	80,293 59	.....	.....	.....	.....	154 79	154 79
1,249 00	.....	.....	166,043 50	166,043 50	156 12	1,092 88	1,249 00
114,305 72	114,305 72	.....	.....	.....	.....	.....	.....
19,210 73	19,210 73	.....	.....	.....	.....	.....	.....
13,220 47	13,220 47	.....	.....	.....	.....	.....	.....
41,193 18	41,148 77	.....	.....	.....	.....	44 41	44 41
50,682 75	50,682 75	.....	.....	.....	.....	.....	.....
10,139 55	9,429 03	.....	8,032 20	8,032 20	710 52	.....	710 52
22,968 52	22,968 52	.....	.....	.....	.....	.....	.....
113,997 86	73,761 45	.....	14,090 07	14,090 07	22,145 42	18,090 99	40,236 41
23,275 07	23,275 07	.....	.....	.....	.....	.....	.....
21,227 39	21,227 39	.....	.....	.....	.....	.....	.....

VALUES— STATEMENT SHOWING CONDITION (

Designation.	Amount earned during Sept., 1899.				Amount earned to date.			
	Main Channel.	Bridges.	General.	Total.	Main Channel.	River Diversion.	Bridges.	Gener
Lemont Highway Br., over D. R., Sec. 8	.....	.....	.....	.....	.....	.....	$ 22,329 89	.....
Western Stone Co.'s Br., over D. R., Sec. 10	.....	.....	.....	.....	.....	.....	15,983 63	.....
Romeo Highway Br. over M. C., Sec. 12	.....	.....	.....	.....	.....	.....	29,731 14	.....
Lockport Highway Br. over M. C., Sec. 16	.....	$ 346 40	.....	$ 346 40	.....	.....	16,943 08	.....
Wire Mills Rd. Br., over M. C., Sec. 16	.....	472 50	.....	472 50	.....	.....	15,597 53	.....
E. J. & E. R. R. Co.'s Br., bet. Secs. 16 and 17	.....	.....	.....	.....	.....	.....	41,984 62	.....
Towpath Bridge, Sec. 17	.....	.....	.....	.....	.....	.....	.....	.....
Cass St. Bridge, Sec. 18	.....	.....	.....	.....	.....	.....	.....	.....
Jefferson St. Bridge, Sec. 18	.....	.....	.....	.....	.....	.....	.....	.....
C. R. I. & P. R.R. Bridge, Sec. 18	.....	3,200 00	.....	3,200 00	.....	.....	6,450 00	.....
Crib work at Joliet	.....	.....	.....	.....	.....	.....	.....	$33,307
Totals	$191,962 71	$115,017 77	.....	$306,980 48	$ 19,615,870 54	$1,000,156 38	$1,454,868 59	$73,067

CONSTRUCTION CONTRACTS, OCTOBER 1, 1899—*Continued.*

Total.	Amount Paid to Date.	REMAINING TO BE EARNED.			REMAINING TO BE PAID ON VOUCHERS.		
		Main Channel.	Bridges.	Total.	Retained Percentages.	Unpaid Vouchers.	Total.
$ 22,329 89	$ 22,329 89	.....	.....	.....	.....	.....	.....
15,983 63	15,983 63	.....	.....	.....	.....	.....	.....
29,731 14	28,085 60	.....	$ 200 00	$ 200 00	$ 1,645 54	.....	$ 1,645 54
16,943 08	16,445 06	.....	653 60	653 60	194 92	$ 303 10	498 02
15,597 53	14,947 84	.....	527 50	527 50	236 25	413 44	649 69
41,984 62	41,984 62	.....	.....	.....	.....	.....	.....
.....	.....	.....	28,453 25	28,453 25	.....	.....	.....
.....	.....	.....	38,265 75	38,265 75	.....	.....	.....
.....	.....	.....	45,627 25	45,627 25	.....	.....	.....
6,450 00	3,963 75	.....	27,878 00	27,878 00	806 25	1,680 00	2,486 25
33,307 56	33,307 56	.....	.....	.....	.....	.....	.....
$22,143,943 19	$21,669,155 16	$514,889 88	$1,067,699 69	$1,582,589 57	$298,127 49	$176,096 54	$474,224 03

QUANTITIES— STATEMENT SHOWING CONDITION OF CON

DESIGNATION.	AMOUNT DONE DURING SEPTEMBER, 1899.				TOTAL DONE TO		
	Main Channel.				*Main Channel.*		
	Glacial Drift. Cu. Yds	Solid Rock. Cu. Yds	Piles & R. W.	Masonry and Conc'r't. Cu. Yds.	Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds.	Retaining Wall. Cu. Yds.
Chicago River Improvement	16,200		2,600	658	923,200		
O	19,307				1,701,777		
N	30,420				988,346		
M					730,573		
L					1,102,980		
K	6,479				1,174,932		
I					1,159,384		
H	21,317				1,066,440		
G					1,395,258		
F					1,093,047	37,448	
E					1,907,362	212,669	
D					1,934,890	87,030	
C					1,881,545		
B					1,379,036	15,586	
A					2,560,648	18,312	
1					1,282,267	554,326	68,256
2					724,905	483,750	38,506
3					425,705	760,778	14,039
4					1,096,746	262,428	68,169
5					952,526	378,609	56,059.1
6					683,248	549,355	30,361.7
7					181,721	890,939	6,179.9
8		3,000			50,170	1,149,752.1	2,874.9
9					76,692	1,008,769	
10					31,743	1,141,890	
11					44,021	989,711	
12					44,030	998,709	9,286.94
13					33,810	1,033,665	10,838
14					380,165	1,022,796	23,567.8
15					35,324	647,039	44,811.2
16	4,767	9,533			24,583	139,067	
17	10,500	29,900			190,100	306,100	1,500
18	15,475	15,250	1750	295	86,850	76,100	1,650
Disposal Works at Lockport						10,111	
Van Buren Street App. Span, Chicago River							
Taylor Street Bridge over Chicago River	1,150		3,663	300	2,050		
C. T. T. R. R. Co.'s Bridge over Chicago River	4,800				4,800		
Southwest Boulevard Bridge over Main Channel, Sec. O					9,873.5		
Panhandle Railroad Company's Bridge over Main Channel, Sec. O				1,215	11,000		
C., M. & N. R. R. Co.'s Bridge over Main Channel, Sec. N					17,849		
C., M. & N. R. R. Co.'s Bridge over Kedzie Avenue, Sec. N					2,869		
Kedzie Avenue Bridge over Main Channel, Sec. N					7,101		
A., T. & S. F. Ry. Co.'s Bridge over Main Channel, Sec. N					7,445		
Belt Railway Co. of Chicago Bridge over Main Channel, Sec. K	500				500		
A., T. & S. F. Ry. Co.'s Bridge over Main Channel, Sec. G					85,253		
Lyons-Summit Road Bridge over Desplaines River, Sec. E							
Lyons-Summit Road Bridge over Main Channel, Sec. F					2,270		
C., T. T. R. R. Co.'s Bridge over Main Channel, Sec. E					4,748.1		
C., T. T. R.R. Co.'s Br. over Desplaines River. Sec. E	*100			40			
Willow Springs Highway Bridge over Main Channel, Sec. 1					2,084		
A., T. & S. F. Ry. Co.'s Bridge over M. C & Stephens St. subway, Sec. 8.		700		283	98,315	2,480	
Lemont Highway Bridge over Main Channel, Sec. 8					2,006	202	
Romeo Highway Bridge over Main Channel, Sec. 12					1,170	2,130	
Lockport Highway Bridge Sec. 16						526	

STRUCTION CONTRACTS OCTOBER 1, 1899.

DATE.				ESTIMATED REMAINING TO BE DONE.				PERCENTAGE COMPLETED.				
River Diversion.		Piles. Lineal Feet.	Masonry and Concr't. Cu. Yds.	*Main Channel.*				Main Channel Excava'n	River Divers'n.	Ret. Wall	Masonry and Concr't	Piles.
Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds.			Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds	Piles & R. W.	Mas'y & Concr't Cu. Yds					
.....	.....	78,300	6,370	122,500	.....	3,418	959	88.29	.....	....	86.91	95.54
.....	.....	.....	.....	72,000	.....	.....	.....	95.94	.....	....	.....	.....
.....	.....	.....	.....	126,963	.....	.....	.....	84.61	.....	....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	....	.....	.....
.....	.....	.....	.....	4,159	.....	.....	.....	99.62	.....	...	.....	.....
.....	.....	.....	.....	5,652	.....	.....	.....	99.52	.....	....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	....	.....	.....
.....	.....	.....	.....	27,571	.....	.....	.....	97.48	.....	....	.....	.....
.....	.....	.....	.....	646	.....	.....	.....	99.95	.....	....	.....	.....
179,447	.....	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
95,718	.....	.....	.....	94	6	.....	.....	99.99	100	....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	....	.....	.....
170,788	.....	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
212,486	.....	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
359,353	.....	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
174,655	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
119,234	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	100	.....	.....
106,808	17,857	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
12,256	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
118,647	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
97,917	43,102	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
57,902	99,390	.....	.....	.....	11,282	.....	.....	99.07	100	100	.....	.....
40,763	16,873	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
30,313	58,276	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
12,699	15,677	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
11,739	7,475	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	100	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	100	.....	.....
619	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
.....	.....	.....	.....	.....	25,933	.....	.....	86.32	.....	...	.....	.....
.....	.....	.....	.....	107,870	74,060	‡1,000	3,000	73.82	.....	60	00	.....
.....	.....	.....	3,903	4,977	66,080	‡4,650	.....	69.65	.....	26.19	100	.....
.....	.....	.....	11,454.1	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	.....	.....	2,800	.....	.....	784	00	.....	....	00	.....
.....	.....	3,663	300	.....	.....	7,177	741	100	.....	....	28.81	33.7
.....	.....	.....	.....	7,200	.....	44,840	8,040	40	.....	....	00	00
.....	.....	10,813	4,421.94	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	.....	1,215	4,200	.....	29,600	13,145	72.37	.....	....	8.5	00
.....	.....	5,948	4,236.77	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	.....	595.69	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	.....	2,886.84	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	4,544	2,489.36	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	.....	.....	7,600	.....	7,007	3,795	06.2	.....	....	00	00
.....	.....	5,748	2,929.03	.....	.....	.....	.....	100	.....	....	100	100
5,924	.....	.....	793.3	.....	.....	.....	.....	.....	100	....	100	.....
.....	.....	1,501	2,037.2	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	1,166.5	2,162.79	.....	.....	.....	.....	100	.....	....	100	100
2,362	.....	.....	476	.....	.....	1,000	176	.....	100	....	73	00
.....	.....	400	598.6	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	.....	1,100.07	29,785	.....	.....	.....	77.19	.....	....	100	.....
.....	.....	.....	433.36	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	.....	1,184.6	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	.....	449.45	.....	.....	.....	.....	100	.....	....	100	.....

QUANTITIES— STATEMENT SHOWING CONDITION OF CON

DESIGNATION.	AMOUNT DONE DURING SEPTEMBER, 1899.				TOTAL DONE TO		
	Main Channel.				*Main Channel.*		
	Glacial Drift. Cu. Yds	Solid Rock. Cu. Yds	Piles & R.W.	Masonry and Concr't. Cu. Yds.	Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds.	Retaining Wall. Cu. Yds.
Wire Mills Road Bridge over Main Channel, Sec. 16	.....	.....	.....	.....	.....	608	.....
E., J. & E. R. R. Co.'s Bridge, between Secs. 16 and 17	.....	.....	.....	.....	.....	.....	.....
Towpath Bridge, Sec. 17	.....	.....	.....	.....	.....	.....	.....
Cass Street Bridge, Sec. 18	.....	.....	.....	.....	.....	.....	.....
Jefferson Street Bridge, Sec. 18	.....	.....	.....	.....	.....	.....	.....
C., R. I. & P. R. R. Co.'s Bridge, Sec. 18	.....	.....	.....	400	.....	1,300	.....
Totals	130,915	58,383	6,263	3,186	27,794,357.6	12,772,180.1	376,099.54

* 100—River Diversion.
† 750—Retaining Wall.
‡ 5,550—Retaining Wall.

STRUCTION CONTRACTS OCTOBER 1, 1899—*Continued.*

DATE.				ESTIMATED REMAINING TO BE DONE.				PERCENTAGE COMPLETED.				
River Diversion.		Piles. Lineal Feet.	Masonry and Concr't. Cu. Yds.	*Main Channel.*				Main Channel Excava'n	River Divers'n.	Ret. Wall	Masonry and Concr't	Piles.
Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds.			Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds	Piles & R. W.	Mas'y& Concr't Cu. Yds					
.....	.....	.....	566.57	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	.....	1,041.84	.....	.....	.....	.....	.....	.....	....	100	.....
.....	.....	.....	.....	.....	.....	.....	845	.....	.....	....	00	.....
.....	.....	.....	.....	2,850	52	.....	696	00	.....	....	00	.....
.....	.....	.....	.....	3,000	104	.....	1,242	00	.....	....	00	.....
.....	.....	.....	400	.....	1,900	.....	926	40.6	.....	....	30.2	.....
1,809,625	258,659	107,083.5	52,135.51	523,357	179,367	93,042 ‡5,650	34,349	98.29	100	98.6	60.28	53.5

VALUES— STATEMENT SHOWING CONDITION O

Designation.	Amount earned during Sept., 1899.				Amount earned to date.			
	Main Channel.	Bridges.	General.	Total.	Main Channel.	River Diversion.	Bridges.	General
Chicago River Imp'ment	$64,124 33			$64,124 33	$ 448,869 39			
O	13,106 91	$ 4,962 51		18,068 52	386,585 35		$ 96,532 82	
N	9,423 67			9,423 67	285,906 30		3,525 02	
M.	893 92			893 92	160,964 44			
L					217,287 06			
K	3,829 48	136 02		3,965 50	301,811 12		7,648 18	
I.					239,846 00			
H	6,181 93			6,181 93	310,916 05			
G					398,638 40			
F					341,404 40	75,627 73		
E	493 10			493 10	753,425 37	29,091 91	15,673 34	260
D					592,039 29	2,880 54		
C.					443,342 59	40,135 18		781
B					438,986 42	59,451 34		150
A					801,584 08	115,741 73		
1.					1,210,660 37	143,908 29	1,912 00	30
2.					377,695 00	63,190 86		90
3.					840,952 93	338 42		
4.					975,248 98	83,304 43		85
5.					749,207 28	6,653 64		
6.	1,269 35			1,269 35	689,104 96	55,911 37		
7.					722,544 74	66,193 19		8,758
8.	3,000 00			3,000 00	892,817 26	89,683 90	19,853 89	2,580
9.					794,338 28	28,573 72	1,012 30	
10.					921,454 79	78,729 58		8,952
11.					797,717 50	43,854 42		
12.	3,516 02	—50 00		3,466 02	841,176 71	21,768 52	1,086 87	
13.					819,388 19			
14					931,457 10			
15.					551,915 85	117 61		
16.	5,577 00			5,577 00	65,296 66		1,500 00	
17.	36,113 00			36,113 00	322,512 18			
18.	43,619 90	2,849 11		46,469 01	227,709 83		12,405 53	
Disposal Wks. at Lockp't	815 00			815 00	262,565 67			
Repairing I. & M. Canal.								18,052
Van Buren St. Approach Span, Chicago River...							4,050 00	
Taylor St. Br. over Chicago River		7,863 25		7,863 25			24,783 39	
C. T. T. R. R. Co.'s Br. over Chicago River....		9,260 41		9,260 41			65,006 68	
S. W. Blvd. Br., over M. C., Sec. O							149,962 42	
Pan Handle Br., over M. C., Sec. O		69,093 55		69,093 55			163,540 89	
C.,M. & N. R. R. Co.'s Br., over M. C., Sec. N,....		7,668 08		7,668 08			167,802 75	
C.,M. & N. R. R. Co.'s Br, over Kedzie Av., Sec. N							14,515 47	
Kedzie Av. Br., over M. C., Sec. N							43,118 58	
A., T. & S. F. Ry. Co.'s Br., over M. C., Sec. N.		547 60		547 60			80,448 38	
Belt Ry. Br. over M. C., Sec. K		1,249 00		1,249 00			1,249 00	
A., T. & S. F. Ry. Co.'s Br., over M. C., Sec. G.							114,305 72	
A., T. & S. F. Ry. Co.'s Br., over D. R., Sec. F.							19,210 73	
Lyons-Summit Road Br., over D. R., Sec. E.....		48 75		48 75			13,220 47	
Lyons-Summit Road Br., over M. C., Sec. F.....		44 41		44 41			41,193 18	
C. T. T. R. R. Co.'s Br., over M. C., Sec. E.....							50,652 75	
C. T. T. R. R. Co.'s Br., over D. R., Sec. E.....		416 25		416 25			10,139 55	
Willow Spgs. Highway Br., over M. C., Sec. 1							22,968 52	
A., T. & S. F. Ry. Co.'s Br. and Stephen Street Subway over M. C., Sec. 8		6,909 93		6,909 93			113,997 86	
A., T. & S. F. Ry. Co,'s Br., over D. R., Sec. 8.							23,275 07	
Lemont Highway Br., over M. C., Sec. 8.....							21,227 39	

CONSTRUCTION CONTRACTS, OCTOBER 1, 1899.

Total.	Amount Paid to Date.	REMAINING TO BE EARNED.			REMAINING TO BE PAID ON VOUCHERS.		
		Main Channel.	Bridges.	Total.	Retained Percentages.	Unpaid Vouchers.	Total.
$ 448,869 39	$ 403,025 49	$ 80,225 96	.....	$ 80,225 96	$ 31,096 90	$ 14,747 00	$ 45,843 90
483,118 17	471,288 11	37,650 00	.....	37,650 00	7,846 37	3,983 69	11,830 06
239,431 32	223,868 92	21,087 62	.....	21,087 62	13,372 80	2,189 60	15,562 40
160,964 44	160,585 54	.....	.....	.....	.....	378 90	378 90
217,287 06	217,287 06	2,287 45	.....	2,287 45	.....	.....	.....
309,459 25	306,634 70	2,842 57	.....	2,842 57	2,072 08	752 47	2,824 55
289,846 00	289,846 00	.....	.....	.....	.....	.....	.....
310,916 05	308,332 15	7,995 59	.....	7,995 59	.....	2,583 90	2,583 90
398,638 40	398,638 40	64 68	.....	64 68	.....	.....	.....
417,032 13	375,082 00	.....	.....	.....	34,103 38	7,846 75	41,950 13
798,450 62	693,021 40	29 58	.....	29 58	97,406 83	8,022 39	105,429 22
594,919 83	594,919 83	.....	.....	.....	.....	.....	.....
484,259 40	484,259 40	.....	.....	.....	.....	.....	.....
498,587 76	498,587 76	.....	.....	.....	.....	.....	.....
917,325 81	917,325 81	.....	.....	.....	.....	.....	.....
1,356,510 66	1,349,615 00	.....	.....	.....	6,179 83	715 83	6,895 66
940,975 86	940,975 86	.....	.....	.....	.....	.....	.....
841,291 35	841,291 35	.....	.....	.....	.....	.....	.....
1,058,638 66	1,058,638 66	.....	.....	.....	.....	.....	.....
755,860 92	755,860 92	.....	.....	.....	.....	.....	.....
745,016 33	745,016 33	.....	.....	.....	.....	.....	.....
797,495 93	797,495 93	.....	.....	.....	.....	.....	.....
1,004,935 11	1,000,950 74	10,172 00	.....	10,172 00	808 12	3,176 25	3,984 37
819,424 30	819,424 30	.....	.....	.....	.....	.....	.....
1,009,136 70	1,009,136 70	.....	.....	.....	.....	.....	.....
841,571 92	841,571 92	.....	.....	.....	.....	.....	.....
864,032 10	860,516 08	11,483 98	.....	11,483 98	.....	3,516 02	3,516 02
819,388 19	819,388 19	15,000 00	.....	15,000 00	.....	.....	.....
931,457 10	931,457 10	.....	.....	.....	.....	.....	.....
552,083 46	552,083 46	.....	.....	.....	.....	.....	.....
66,796 66	53,938 84	526 50	.....	526 50	7,977 94	4,879 88	12,857 82
322,512 18	273,412 20	144,363 85	.....	144,363 85	31,182 28	17,917 70	49,099 98
240,115 36	191,436 84	181,160 10	.....	181,160 10	27,712 63	20,965 89	48,678 52
262,565 67	261,750 67	.....	.....	.....	.....	815 00	815 00
18,052 85	18,052 85	.....	.....	.....	.....	.....	.....
4,050 00	4,050 00	.....	15,445 87	15,445 87	.....	.....	.....
24,783 39	19,571 89	.....	58,923 47	58,923 47	1,514 59	3,696 91	5,211 50
65,006 68	55,746 27	.....	274,461 99	274,461 99	.....	8,696 41	8,696 41
149,962 42	145,734 20	.....	6,000 00	6,000 00	4,228 22	.....	4,228 22
163,540 89	111,764 47	.....	383,097 24	383,097 24	6,730 50	45,045 92	51,776 42
167,802 75	163,416 33	.....	.....	.....	.....	4,386 42	4,386 42
14,515 47	14,515 47	.....	.....	.....	.....	.....	.....
43,118 58	43,118 58	.....	.....	.....	.....	.....	.....
80,448 38	80,293 59	.....	.....	.....	.....	154 79	154 79
1,249 00	.....	.....	166,043 50	166,043 50	156 12	1,092 88	1,249 00
114,305 72	114,305 72	.....	.....	.....	.....	.....	.....
19,210 73	19,210 73	.....	.....	.....	.....	.....	.....
13,220 47	13,220 47	.....	.....	.....	.....	.....	.....
41,193 18	41,148 77	.....	.....	.....	.....	44 41	44 41
50,682 75	50,682 75	.....	.....	.....	.....	.....	.....
10,139 55	9,429 03	.....	8,032 20	8,032 20	710 52	.....	710 52
22,968 52	22,968 52	.....	.....	.....	.....	.....	.....
113,997 86	73,761 45	.....	14,090 07	14,090 07	22,145 42	18,090 99	40,236 41
23,275 07	23,275 07	.....	.....	.....	.....	.....	.....
21,227 39	21,227 39	.....	.....	.....	.....	.....	.....

VALUES— STATEMENT SHOWING CONDITION

Designation.	Amount earned during Sept., 1899.				Amount earned to date.			
	Main Channel.	Bridges.	General.	Total.	Main Channel.	River Diversion.	Bridges.	General.
Lemont Highway Br., over D. R., Sec. 8	.....	.....	.....	.....	.....	.....	$ 22,329 89	.....
Western Stone Co.'s Br., over D. R., Sec. 10	.....	.....	.....	.....	.....	.....	15,983 63	.....
Romeo Highway Br. over M. C., Sec. 12	.....	.....	.....	.....	.....	.....	29,731 14	.....
Lockport Highway Br. over M. C., Sec. 16	.....	$ 346 40	.....	$ 346 40	.....	.....	16,943 08	.....
Wire Mills Rd. Br., over M. C., Sec. 16	.....	472 50	.....	472 50	.....	.....	15,597 53	.....
E. J. & E. R. R. Co.'s Br., bet. Secs. 16 and 17.	.....	.....	.....	.....	.....	.....	41,984 62	.....
Towpath Bridge, Sec. 17	.....	.....	.....	.....	.....	.....	.....	.....
Cass St. Bridge, Sec. 18	.....	.....	.....	.....	.....	.....	.....	.....
Jefferson St. Bridge, Sec. 18	.....	.....	.....	.....	.....	.....	.....	.....
C. R. I. & P. R.R. Bridge, Sec. 18	.....	3,200 00	.....	3,200 00	.....	.....	6,450 00	.....
Crib work at Joliet	.....	.....	.....	.....	.....	.....	.....	$33,[illegible]
Totals	$191,962 71	$115,017 77	.....	$306,980 48	$ 19,615,870 54	$1,000,156 38	$1,434,868 59	$73,047 [illegible]

CONSTRUCTION CONTRACTS. OCTOBER 1, 1899—*Continued*.

Total.	Amount Paid to Date.	REMAINING TO BE EARNED.			REMAINING TO BE PAID ON VOUCHERS.		
		Main Channel.	Bridges.	Total.	Retained Percentages.	Unpaid Vouchers.	Total.
$ 22,329 89	$ 22,329 89	.....	.....	.....	.....	.....	.....
15,983 63	15,983 63	.....	.....	.....	.....	.....	.....
29,731 14	28,085 60	.....	$ 200 00	$ 200 00	$ 1,645 54	.....	$ 1,645 54
16,943 08	16,445 06	.....	653 60	653 60	194 92	$ 303 10	498 02
15,597 53	14,947 84	.....	527 50	527 50	236 25	413 44	649 69
41,984 62	41,984 62	.....	.....	.....	.....	.....	.....
.....	.....	.....	28,453 25	28,453 25	.....	.....	.....
.....	.....	.....	38,265 75	38,265 75	.....	.....	.....
.....	.....	.....	45,627 25	45,627 25	.....	.....	.....
6,450 00	3,963 75	.....	27,878 00	27,878 00	806 25	1,680 00	2,486 25
33,307 56	33,307 56	.....	.....	.....	.....	.....	.....
$22,143,943 19	$21,669,155 16	$514,889 88	$1,067,699 69	$1,582,589 57	$298,127 49	$176,096 54	$474,224 03

QUANTITIES— STATEMENT SHOWING CONDITION OF CON

DESIGNATION.	AMOUNT DONE DURING SEPTEMBER, 1899.				TOTAL DONE TO		
	Main Channel.			Masonry and Conc'r't. Cu. Yds.	*Main Channel.*		
	Glacial Drift. Cu. Yds	Solid Rock. Cu. Yds	Piles & R. W.		Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds.	Retaining Wall. Cu. Yds.
Chicago River Improvement	16,200		2,600	653	923,200		
O	19,307				1,701,777		
N	30,420				988,346		
M					730,573		
L					1,102,980		
K	6,479				1,174,932		
I					1,159,384		
H	21,317				1,066,440		
G					1,395,258		
F					1,093,047	37,448	
E					1,907,362	212,669	
D					1,934,890	87,030	
C					1,881,545		
B					1,570,036	15,586	
A					2,560,648	13,312	
1					1,232,267	554,326	68,256
2					724,905	483,750	38,506
3					425,705	760,778	14,039
4					1,096,746	262,428	68.169
5					952,526	378,609	55,059.1
6					683,248	549,355	30,361.7
7					181,721	890,939	6,179.9
8		3,000			50,170	1,149,752.1	2,874.9
9					76,692	1,003,769	
10					31,743	1,141,890	
11					44,021	989,711	
12					44,030	998,709	9,286.94
13					33,810	1,033,665	10,838
14					380,165	1,022,796	23,567.8
15					35,324	647,039	44,811.2
16	4,767	9,533			24,583	139,067	
17	10,500	29,900			190,100	306,100	1,500
18	15,475	15,250	†750	295	86,850	76,100	1,650
Disposal Works at Lockport						10,111	
Van Buren Street App. Span, Chicago River							
Taylor Street Bridge over Chicago River	1,150		3,663	300	2,050		
C. T. T. R. R. Co.'s Bridge over Chicago River	4,800				4,800		
Southwest Boulevard Bridge over Main Channel, Sec. O					9,873.5		
Panhandle Railroad Company's Bridge over Main Channel, Sec. O				1,215	11,000		
C., M. & N. R. R. Co.'s Bridge over Main Channel, Sec. N					17,849		
C., M. & N. R. R. Co.'s Bridge over Kedzie Avenue, Sec. N					2,869		
Kedzie Avenue Bridge over Main Channel, Sec. N					7,101		
A., T. & S. F. Ry. Co.'s Bridge over Main Channel, Sec. N					7,445		
Belt Railway Co. of Chicago Bridge over Main Channel, Sec. K	500				500		
A., T. & S. F. Ry. Co.'s Bridge over Main Channel, Sec. G					85,253		
Lyons-Summit Road Bridge over Desplaines River, Sec. E							
Lyons-Summit Road Bridge over Main Channel, Sec. F					2,270		
C., T. T. R. R. Co.'s Bridge over Main Channel, Sec. E					4,748.1		
C., T. T. R.R. Co.'s Br. over Desplaines River, Sec. E	*100			40			
Willow Springs Highway Bridge over Main Channel, Sec. 1					2,084		
A., T. & S. F. Ry. Co.'s Bridge over M. C & Stephens St. subway, Sec. 8.		700		283	98,315	2,480	
Lemont Highway Bridge over Main Channel, Sec. 8					2,006	202	
Romeo Highway Bridge over Main Channel, Sec. 12					1,170	2,130	
Lockport Highway Bridge Sec. 16						526	

STRUCTION CONTRACTS OCTOBER 1, 1899.

DATE.				ESTIMATED REMAINING TO BE DONE.				PERCENTAGE COMPLETED.				
River Diversion.		Piles. Lineal Feet.	Masonry and Concr't. Cu. Yds.	*Main Channel.*								
Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds.			Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds	Piles & R. W.	Mas'y & Concr't Cu. Yds	Main Channel Excava'n	River Divers'n.	Ret. Wall	Masonry and Concr't	Piles.
.....	.....	73,300	6,370	122,500	.....	3,418	959	88.29	.....	....	86.91	95.54
.....	.....	.....	.....	72,000	.....	.....	.....	95.94	.....	....	.....	.....
.....	.....	.....	.....	126,963	.....	.....	.....	84.61	.....	....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	....	.....	.....
.....	.....	.....	.....	4,159	.....	.....	.....	99.62	.....	...	.....	.....
.....	.....	.....	.....	5,652	.....	.....	.....	99.52	.....	....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	....	.....	.....
.....	.....	.....	.....	27,571	.....	.....	.....	97.48	.....	....	.....	.....
.....	.....	.....	.....	646	.....	.....	.....	99.95	.....	....	.....	.....
179,447	.....	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
95,718	.....	.....	.....	94	6	.....	.....	99.99	100	....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	....	.....	.....
170,788	.....	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
212,486	.....	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
359,353	.....	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
174,655	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
119,234	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	100	.....	.....
105,808	17,857	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
12,256	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
118,647	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
97,917	43,102	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
57,902	99,399	.....	.....	.....	11,282	.....	.....	99.07	100	100	.....	.....
40,763	16,873	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
30,313	58,276	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
12,699	15,677	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
11,739	7,475	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	100	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	100	.....	.....
619	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
.....	.....	.....	.....	.....	25,933	.....	.....	86.82	.....	....	.....	.....
.....	.....	.....	.....	107,870	74,060	‡1,000	3,000	73.82	.....	60	00	.....
.....	.....	.....	3,993	4,977	66,030	‡4,650	.....	69.65	.....	26.19	100	.....
.....	.....	.....	11,454.1	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	.....	.....	2,800	.....	.....	784	00	.....	....	00	.....
.....	.....	3,663	300	.....	.....	7,177	741	100	.....	....	28.81	33.7
.....	.....	.....	.....	7,200	.....	44,840	8,040	40	.....	....	00	00
.....	.....	10,813	4,421.94	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	.....	1,215	4,200	.....	29,600	13,145	72.37	.....	....	8.5	00
.....	.....	5,948	4,236.77	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	.....	595.69	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	.....	2,886.84	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	4,544	2,489.36	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	.....	.....	7,600	.....	7,007	3,795	06.2	.....	....	00	00
.....	.....	5,748	2,929.08	.....	.....	.....	.....	100	.....	....	100	100
5,924	.....	.....	793.3	.....	.....	.....	.....	.....	100	....	100	.....
.....	.....	1,501	2,087.2	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	1,166.5	2,162.79	.....	.....	.....	.....	100	.....	....	100	100
2,362	.....	.....	476	.....	.....	1,000	176	.....	100	....	73	00
.....	.....	400	598.6	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	.....	1,100.07	29,785	.....	.....	.....	77.19	.....	....	100	.....
.....	.....	.....	433.36	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	.....	1,184.6	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	.....	449.45	.....	.....	.....	.....	100	.....	....	100	.....

QUANTITIES— STATEMENT SHOWING CONDITION OF CON

DESIGNATION.	AMOUNT DONE DURING SEPTEMBER, 1899.				TOTAL DONE TO		
	Main Channel.				*Main Channel.*		
	Glacial Drift. Cu. Yds	Solid Rock. Cu. Yds	Piles & R.W.	Masonry and Concr't. Cu. Yds.	Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds.	Retaining Wall. Cu. Yds.
Wire Mills Road Bridge over Main Channel, Sec. 16	.....	.....	.....	.....	.....	608	.....
E., J. & E. R. R. Co.'s Bridge, between Secs. 16 and 17	.....	.....	.....	.....	.....	.....	.....
Towpath Bridge, Sec. 17	.....	.....	.....	.....	.....	.....	.....
Cass Street Bridge. Sec. 18	.....	.....	.....	.....	.....	.....	.....
Jefferson Street Bridge, Sec. 18	.....	.....	.....	.....	.....	.....	.....
C., R. I. & P. R. R. Co.'s Bridge, Sec. 18	.....	.....	.....	400	.....	1,300	.....
Totals	130,915	58,383	6,263	3,186	27,794,357.6	12,772,180.1	876,099.54

* 100—River Diversion.
† 750—Retaining Wall.
‡ 5,650—Retaining Wall.

STRUCTION CONTRACTS OCTOBER 1, 1899—*Continued.*

DATE.				ESTIMATED REMAINING TO BE DONE.				PERCENTAGE COMPLETED.				
River Diversion.		Piles. Lineal Feet.	Masonry and Concr't. Cu. Yds.	*Main Channel.*				Main Channel Excava'n	River Divers'n.	Ret. Wall	Masonry and Concr't	Piles.
Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds.			Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds	Piles & R. W.	Mas'y & Concr't Cu. Yds					
.....	.....	.....	566.57	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	.....	1,041.84	.....	.....	.....	.....	.....	.....	....	100	.....
.....	.....	.....	.....	.....	.....	.....	845	.....	.....	....	00	.....
.....	.....	.....	.....	2,850	52	.....	696	00	.....	....	00	.....
.....	.....	.....	.....	3,000	104	.....	1,242	00	.....	....	00	.....
.....	.....	.....	400	.....	1,900	.....	926	40.6	.....	....	30.2	.....
1,809,625	258,659	107,083.5	52,135.51	523,357	179,367	93.042 ‡5,650	84,349	98.29	100	98.6	60.28	53.5

REPORT IN REFERENCE TO REDUCTION OF BOND ON CONTRACT FOR SECTION C.

Mr. Carter, Chairman, presented, and the Clerk read, a report from the Committee on Finance in reference to a communication from the American Surety Company of New York as to the cancellation of the bond of the Western Dredging and Improvement Company on the contract for Section C, the report reviewing the circumstances in connection therewith, and recommending that the original bond be reduced to the sum of ten thousand dollars, the contractor, however, to remain liable as on the original bond and to furnish a surety on the reduced bond satisfactory to the Committee on Finance and to the Board.

Mr. Carter, seconded by Mr. Jones, moved that the report be adopted and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette and Wenter—eight. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, Oct. 31, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—The Committee on Finance herewith reports that it has received a communication from the American Surety Company of New York on behalf of the Western Dredging and Improvement Company with reference to the matter of cancelling the bond furnished by said company under its contract with the District for the completion of the work on Section "C." The Committee is advised by the Attorney that the suit begun by Joseph O. Wright against the Western Dredging and Improvement Company and the District, in which the complainant seeks to foreclose a lien upon moneys belonging to said Western Dredging and Improvement Company alleged to be in the hands of the District has not yet been disposed of; but the Committee is also informed that the amount involved in said suit does not exceed the sum of six thousand five hundred dollars ($6,500.00). The Committee is advised that the work upon said section was completed in 1898, and the final certificate awarded on December 14, 1898.

In view of all the circumstances and conditions in connection with the work upon said section, the Committee is of the opinion that the bond upon said work should be reduced, and recommends that the same be reduced to the sum of ten thousand dollars ($10,000.00); the contractor, however, to remain liable as on the original bond, and to furnish a surety on the reduced bond satisfactory to the Finance Committee and to the Board of Trustees.

Respectfully submitted,

(Signed) Z. R. CARTER,
Chairman.
FRANK WENTER,
ALEX. J. JONES,
Committee on Finance."

(One enclosure.)

REPORT IN REFERENCE TO COMPLETION OF CONTRACT FOR SUBSTRUCTURE FOR ROMEO HIGHWAY BRIDGE CROSSING MAIN CHANNEL.

Mr. Smyth, Chairman, presented, and the Clerk read, a report from the Committee on Engineering in reference to, and accompanied by, final certificate of the Chief Engineer as to the completion of the contract with Messrs. Heldmaier & Neu for the substructure for Romeo Highway Bridge crossing Main Channel; the report recommending that the President and Clerk of the District be directed to pay to said Heldmaier & Neu the sum of $1,888.54 on the execution of a receipt in full of all claims and demands of every kind and nature arising out of said contract.

Mr. Smyth, seconded by Mr. Eckhart, moved that the report be adopted and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—nine. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, October 30, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—The Committee on Engineering presents herewith the final certificate of the Chief Engineer of the District in reference to the contract with

Messrs. Heldmaier & Neu, dated August 24, 1898, for the construction of the Romeo Road Bridge on Section "12," and reports that the committee has examined said certificate and fully considered the subject-matter of the completion of the work done under said contract, and recommends as follows:

That the President and Clerk of the District be authorized and directed to make final payment to said Heldmaier & Neu in the sum of eighteen hundred and eighty-eight dollars and fifty-four cents ($1,888.54), the sum found to be due said contractors in the aforesaid final certificate hereto attached, upon the execution of a receipt in favor of the District, made by said contractors in full, and releasing the District from any and all claims or demands of every kind and nature whatsoever on said contract.

Respectfully submitted,

(Signed) THOMAS A. SMYTH,
Chairman.
J. P. MALLETTE,
THOMAS KELLY,
Z. R. CARTER,
A. J. JONES,
B. A. ECKHART,
FRANK WENTER,
WM. BOLDENWECK,
Committee on Engineering."

One enclosure.

The following is

THE FINAL CERTIFICATE OF THE CHIEF ENGINEER:

"CHICAGO, October 23, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN — I hereby certify that Heldmaier & Neu have completed all of the work covered by their contract, dated August 24, 1898, for the construction of the Romeo Road Bridge across the Main Channel on Contract Section 12, to the full satisfaction of the Chief Engineer.

This certificate is given subject to any unaccrued or unmatured obligations imposed by the contract.

The present statement of this contract is as follows:

Excavation, 3,624 cubic yards at 75c	$ 2,718 00
Portland Cement Concrete, 357.7 cubic yards at $8.50	3,040 45
Masonry, 826.9 cubic yards at $9.25	7,648 83
Total cost of contract	$13,407 28
Amount paid on previous vouchers	11,518 74
Amount due and unpaid	$ 1,888 54

Respectfully submitted,

(Signed) ISHAM RANDOLPH,
Chief Engineer."

PAYMENT ON ACCOUNT OF RESERVE PERCENTAGE ON CONTRACT FOR SECTION N.

Mr. Carter presented, and the Clerk read, the following

ORDER:

"WHEREAS, It has been represented to the Board of Trustees by Messrs. Hayes Brothers, contractors on Section "N" of the Main Channel, that it will be necessary for them to have a payment made out of the reserve percentage fund held by the District under their contract on Section "N" of the Main Channel; and,

WHEREAS, It is deemed necessary by the Board of Trustees, in order to accomplish the more rapid progress of the work on said section, that said payment be made; it is, therefore,

Ordered, That the President and Clerk of the District be authorized and directed to pay said Messrs. Hayes Brothers, on the voucher of the Chief Engineer, the sum of four thousand dollars ($4,000.00), the same to be charged to the reserve percentage fund of said contractors remaining in the hands of the District under its contract with said firm on Section 'N'."

Mr. Carter, seconded by Mr. Braden, moved that the order be adopted.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—nine. Nays—none.

Upon this result the President declared the motion carried.

ORDER IN REFERENCE TO PAYMENT OF EXPENSES OF SPECIAL COMMISSIONERS CHICAGO DRAINAGE CHANNEL.

Under the head of new business Mr. Carter presented, and the Clerk read, an

order that the Clerk be directed to draw a warrant on the Treasurer of the District in the sum of $2,311.01 in favor of the Clerk, said amount to be treated as a special emergency fund to be used in the payment of pay-roll and bills incurred for the month of October, 1899, by the Commissioners appointed by the Governor of the State of Illinois under Section 27 of the Sanitary District Act, and that the Clerk shall pay said Commissioners the amount shown to be due according to the schedule accompanying said order, duly certified by said Commissioners.

Mr. Carter, seconded by Mr. Kelly, moved that the order be adopted.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—nine. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE ORDER:

"*Ordered*, That the Clerk be, and he is hereby, directed to draw a warrant on the Treasurer of the District in the sum of twenty-three hundred eleven and one one hundredths ($2,311.01) dollars, in favor of himself, said amount to be treated as a special emergency fund, to be used in payment of pay-roll and bills incurred for the month of October, A. D. 1899, by the Commissioners appointed by the Governor of the State of Illinois: under and by virtue of Section 27 of an act entitled, "An act to create Sanitary Districts and to remove obstructions in the Desplaines and Illinois Rivers, and the dams at Henry and Copperas Creek," approved May 29, 1889, in force July 1, 1889.

Ordered, Further, that the Clerk shall pay to said Commissioners the amount shown to be due according to a schedule of pay-roll and bills incurred as aforesaid, duly certified by said Commissioners."

The following is

THE SCHEDULE:

"ITEMS OF EXPENSE, PAY ROLLS OF ENGINEERING DEPARTMENT AND SALARIES OF THE SPECIAL COMMISSION FOR THE MONTH OF OCTOBER, 1899.

Engineering Department.

J. P. Frizell, Hydraulic Engineer October salary	$ 250 00
H. A. Potwin, Assistant Engineer, October salary	$ 166 66
J. Cammer, Draughtsman, October salary	100 00
E. Zarbell, Assistant Engineer, October salary	100 00
P. W. O'Callaghan, use of boat in Channel	18 50
Pearson Bros., supplies	5 35
Oliphant Printing Company, supplies	3 50
Thayer & Jackson Company, supplies	85
H. A. Potwin, Assistant Engineer, expenses for September	1 90
H. A. Potwin, Assistant Engineer, expenses for October	2 40
	$ 649 16

Office Department.

Chicago Towel Company, rent for October	$ 3 00
Chicago Telephone Company, telephone bill	2 40
Wyckoff, Seamans & Benedict, typewriter rent to November 22, 1899	7 00
Security Deposit Company, rent and light to November 10, 1899	76 50
Miss Selby, stenographer and clerk, October salary	100 00
Sam Hanks, ice, October account	2 50
	$ 840 56

Commissioners' Salaries.

Isaac Taylor, per diem and expenses for October	$ 354 76
Al. F. Schoch, per diem and expenses for October	325 69
John Lambert, August per diem, 27 days at $10 per day	270 00
John Lambert, September per diem, 26 days at $10 per day	260 00
John Lambert, October per diem, 26 days at $10 per day	260 00
Total	$ 2,311 01

The above accounts have been duly authorized and approved by the Board.

(Signed) ISAAC TAYLOR,
President.

AL. F. SCHOCH,
Secretary."

ADDITIONAL EMERGENCY FUND FOR CLERICAL DEPARTMENT.

Mr. Carter presented, and the Clerk read, an order directing that the Clerk of

the District draw a warrant on the Treasurer in the sum of $2,500.00 to be held as an emergency fund, subject to the check of the Clerk only as the needs of the District may require, and to be charged to the account of Joseph F. Haas, Clerk.

Mr. Carter, seconded by Mr. Wenter, moved that the order be adopted.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—nine. Nays—none.

Upon this result the President declared the motion carried.

The following is

ORDER:

"*Ordered*, That the Clerk of this District be, and he is hereby, authorized and directed to draw a warrant on the Treasurer, payable to his own order, in the sum of twenty-five hundred (2,500) dollars, to be held by said Clerk as an emergency fund, payable upon his individual check only, from time to time, as may seem advisable and the needs of the District may require, and to be charged to the account of Joseph F. Haas, Clerk."

ADJOURNMENT.

On motion of Mr. Kelly, seconded by Mr. Braden, the Board then adjourned.

Joseph F. Haas

Clerk.

PROCEEDINGS

—OF THE—

BOARD OF TRUSTEES

—OF THE—

SANITARY DISTRICT OF CHICAGO.

NOVEMBER 8, 1899.

OFFICIAL RECORD.

Published by authority of the Board o Trustees of the Sanitary District of Chicago.

REGULAR MEETING.

The four hundred and sixty-second regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Wednesday, November 8, 1899, at 2 o'clock P. M.

On roll-call Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette and Wenter—eight members, were present.

President Boldenweck then called the Board to order.

VOUCHERS.

The Clerk presented the following vouchers:

ENGINEERING DEPARTMENT.

A. P. Little (stationery)	$ 3 25
A. C. McClurg & Co. (stationery)	6 67
Wm. Zeuch & Co. (stationery)	18 00
The Johnson Padding Company (stationery)	7 50
J. A. Anderson (photo supplies)	10 50
Hans Isak (gauge reading)	10 00
W. H. Salisbury & Co. (rubber boots)	13 32
Pearson Bros. (blue-prints)	3 43

Eugene Dietzgen Company (blue-prints)	$ 21 83		
Keuffel & Esser Company (drafting supplies)	47 30		
Henry Henschen (sundries)	13 78		
D. H. Preston & Co. (coal)	7 00		
Norton & Co. (coal)	13 50		
Hibbard, Spencer, Bartlett & Co. (hardware)	13 60		
Francis Beidler & Co. (lumber)	20 80		
Geo. B. Carpenter & Co. (paints)	5 25		
Sibley Warehouse and Storage Company (storage)	30 00		
J. S. Hull (expense)	17 35		
Wm. Trinkaus (expense)	41 42		
*H. B. Alexander (expense)	62 88		
*Soper Lumber Company (pine stakes)	58 50		
*Peter Peterson (division office)	122 25		
*Manz Photographing Company (prints for model)	520 50		
*Robert W. Hunt & Co. (inspecting bridge material)	719 68		
		$	1,788 31

LAW DEPARTMENT.

Wm. Zeuch & Co. (printing)	$ 20 50		
Elizabeth H. Ryan (typewriting)	28 60		
Title Guarantee and Trust Company (opinion)	30 00		
Edward R. Nadelhoffer (typewriting)	18 00		
*Thomas N. Jamieson, Clerk (fees)	68 25		
*John W. Nadelhoffer (expense)	87 25		
*Thomas Taylor, Jr., Master in Chancery (fees)	116 50		
		$	369 10

GENERAL ACCOUNT.

*Arthur W. Palmer (streams examination)	$ 357 00		
*Edwin O. Jordan (streams examination)	401 75		
*Arthur R. Reynolds (streams examination)	235 07		
Dr. E. D. Kilbourne (streams examination)	20 00		
		$	1,013 82

MAINTENANCE ACCOUNT.

Illinois Oil Station (oil)	$ 10 70		
Dearborn Drug and Chemical Works (compound)	37 95		
H. B. Alexander (expense)	20 62		
*Weaver Coal Company (coal)	280 51		
*Weaver Coal Company (coal)	388 90		
		$	738 38

HELDMAIER & NEU ACCOUNT.

*Donald Fraser (inspecting bridge)		$	87 50

*CONSTRUCTION ACCOUNT.

Griffiths & McDermott (By-pass, Chicago River)	$ 3,399 11		
Griffiths & McDermott (By-pass, Chicago River)	406 86		
Lydon & Drews Company (By-pass, Chicago River)	13,022 19		
Lydon & Drews Company (By-pass, Chicago River)	5,926 35		
Chicago Bridge and Iron Company (Taylor Street Bridge)	4,058 55		
Pennsylvania Steel Company (C. T. T. R. R. Bridge)	3,578 65		
McArthur Bros. Company (Eight-track Bridge)	18,219 75		
McArthur Bros. Company (Eight-track Bridge)	11,781 81		
Thomas Moulding Company (Eight-track Bridge)	187 00		
Hayes Bros. et al. (Section O, November 1, 1899)	1,704 80		
Hayes Bros. et al. (Section N, November 1, 1899)	1,861 97		

*To be paid by warrants, with interest coupons attached, drawn against the Tax Levy for 1899.

Gahan & Byrne (Section H, November 1, 1899)	$ 2,584 48	
The Toledo Bridge Company (Belt Railway Bridge)	610 31	
Mason, Hoge, King & Co. (Section 8, railroad embankment)	5,589 07	
Sackley & Peterson (Section 8, subway)	4,226 25	
Shepard Stone Company (concreting clay pockets)	847 14	
Hayes Bros. (Section 16, November 1, 1899)	4,715 16	
Heldmaier & Neu (C. T. T. R. R., Section E, bridge)	1,618 26	
Heldmaier & Neu (Section 17, November 1, 1899)	10,615 50	
The J. G. Wagner Company (Jefferson Street Temporary Bridge)	78 12	
The J. G. Wagner Company (Jefferson Street Bridge)	3,887 19	
Geo. M. Huss (By-pass, Chicago River)	326 44	
Patrick Conley (Wire Mills Road)	1,123 23	
C. Schroeter (Section 8, Santa Fe Bridge)	425 00	
C. Schroeter (Section 8, Santa Fe Bridge)	250 00	
Isham Randolph (Belt Railway Bridge)	50 00	
Isham Randolph (Section O, pumps)	184 20	
Isham Randolph (Section O, Pan Handle Bridge)	246 80	
Isham Randolph (Regulating Works)	285 00	
Isham Randolph (concreting clay pockets)	582 23	
Gahan & Byrne (Section 18, November 1, 1899)	29,705 69	
		$132,097 11
Grand total		$136,094 52

Mr. Carter, seconded by Mr. Wenter, moved that the vouchers, as read and shown above, be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, and Wenter—eight. Nays—none.

Upon this result the President declared the motion carried.

REQUISITIONS.

The Clerk presented the following requisitions:

No. 832, Law Department (supplies) $14 05
No. 965, Police Department (supplies) 47 70

Mr. Kelly, seconded by Mr. Eckhart, moved that Requisitions Nos. 832 and 965, as read and shown above, be allowed.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Carter, Eckhart, Jones, Kelly, Mallette and Wenter—seven. Nays—none.

Upon this result the President declared the motion carried.

MONTHLY REPORT FROM TREASURY DEPARTMENT.

The Clerk presented a report from the Treasury Department for the month of October, 1899, which, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT:

Receipts.

Balance on hand at date of last report		$ 140,871 66
From County Treasurer, Sanitary District Tax Account	$ 300,000 00	
From J. F. Haas, Clerk, Maintenance Account	400 00	
From J. F. Haas, Clerk, Land Account	112 50	
From J. F. Haas, Clerk, Land Account	100 00	
From J. F. Haas, Clerk, Police Department	100 00	
From Chicago National Bank, Interest Account	189 55	
Total cash received for month		$ 300,902 05
		$ 441,773 71

Disbursements.

Clerical Department	$ 45 16	
Engineering Department	727 02	
Law Department	192 38	
General Account	454 90	
Maintenance Account	63 80	
Police Department	55 72	
Total cash disbursed		$ 1,539 28
Balance this date, in banks as per schedule endorsed hereon		440,234 43
		$ 441,773 71

Schedule.

Chicago National Bank	$ 414,295 65
National Bank of Illinois	25,938 78
Total	$ 440,234 43

CHICAGO, November 4, 1899. (Signed) F. M. BLOUNT, *Treasurer.*

By S. P. BLOUNT, *Asst. Treasurer.*

REPORT IN REFERENCE TO EXECUTION OF DEED FOR CERTAIN LANDS TO THE ECONOMY LIGHT AND POWER COMPANY.

On behalf of the Committee on Engineering Mr. Mallette presented, and the Clerk read, a report in reference to the execution of a deed for certain lands, as described in the report, to the Economy Light and Power Company, in accordance with the terms of an agreement heretofore entered into with said company, the report recommending that the President and Clerk be authorized to execute and deliver to said Economy Light and Power Company a deed in the form attached to the report, conveying the said described property subject to all the rights secured to the Sanitary District by the agreement above mentioned.

Mr. Mallette, seconded by Mr. Jones, moved that the report be adopted and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Carter, Eckhart, Jones, Mallette and Wenter—six. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, November 8, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Your Committee on Engineering begs leave to report that, by the terms of an agreement entered into by the Sanitary District of Chicago and the State of Illinois and the Economy Light and Power Company, it was agreed that the State of Illinois and said Economy Light and Power Company should acquire title to certain property on the east bank of the Illinois and Michigan Canal, north of Jackson Street, in the City of Joliet, sufficient to construct thereon a tail race of the capacity of 720,000 cubic feet of water per minute; and,

WHEREAS, By an agreement and decree entered in the Circuit Court of Will County, in a case therein pending between the Canal Commissioners and the Sanitary District of Chicago, it is among other things provided that the State of Illinois shall construct a wall north from the east side of the proposed new dam mentioned in said decree to the north end of what is termed in said decree "the tail race," the site of said tail race being upon and over the real estate and property above mentioned; and,

WHEREAS, It is further provided in said decree that the State of Illinois shall cause to be put in said wall head gates or openings sufficient to pass through said wall and into said tail race 720,000 cubic feet of water per minute; and the said State of Illinois, on its part, agrees that it will at all times take care of said gates so that the same will, whenever necessary, pass the full quantity of 720,000 cubic feet of water per minute; and,

WHEREAS, By said agreement above mentioned, the State of Illinois and the

Economy Light and Power Company agree at all times, when it may be necessary, in the event that the State of Illinois or said Economy Light and Power Company shall fail or neglect to open said head gates or tail-race to prevent overflow and damage in periods of high water in the Desplaines River, or in times of floods and freshets, that said Sanitary District of Chicago may go upon said property and open the said head gates and waste gates, so as to permit the same to discharge into said tail race the full quantity of 720,000 cubic feet of water per minute, and that neither said State of Illinois nor said Economy Light and Power Company will, by its agents, officers or servants, interfere with the officers, agents or servants of the said Sanitary District in so opening said head gates and waste gates, as aforesaid; and,

WHEREAS, The Said Sanitary District of Chicago acquired title, by condemnation, to the following described real estate, to-wit:

Lot one (1), in Block thirty-seven (37); Lots three (3), four (4) and five (5), in Block thirty-six (36); also a strip of land formerly constituting a part of a street, now vacated, lying between Lot five (5) in Block thirty-six (36), and Lot one (1), Block thirty-seven (37), and between Mill Street and the upper basin of the Illinois and Michigan Canal, all in North Joliet, in the Townsbip of Joliet, County of Will and State of Illinois, upon which said tail-race is to be constructed; the consideration for said real estate, and the amount awarded for the same, having been paid by the Economy Light and Power Company, who are equitably entitled to the same, subject to all the rights secured to the Sanitary District by the agreement and decree above mentioned.

Your Committee, therefore, recommends that the President and Clerk of the District be authorized to execute and deliver to said Economy Light and Power Company the deed in the form hereto attached conveying said above described property, subject to all the rights secured to the Sanitary District by the agreement above mentioned.

(Signed) J. P. MALLETTE,
THOMAS KELLY,
Z. R. CARTER,
FRANK WENTER,
B. A. ECKHART,
A. J. JONES,
Committee on Engineering."

(Accompanied by form of deed)

COMMUNICATION FROM U. S. ENGINEER IN REFERENCE TO PAYMENT FOR LANDS.

The Clerk presented and read a communication from W. L. Marshall, Major, Corps of Engineers, setting forth that the agreement for the purchase and sale of the Spry tract, required for widening Chicago River, has been approved, and requesting that the Board designate to whom payment shall be made and have said party call and sign necessary documents and receive checks.

By unanimous consent, the communication was ordered received, printed and placed on file.

The following is

THE COMMUNICATION:

"CHICAGO, Nov. 6, 1899.

To the Trustees of the Sanitary District of Chicago, 1110 Security Building:

GENTLEMEN—The agreement for purchase and sale of the Spry tract, required for widening the Chicago River, has been approved and payment therefor ($9,707.50) authorized by the Department.

I would be pleased to have you indicate to whom payment shall be made and have him call at this office to sign necessary vouchers and receive check.

Very respectfully,

(Signed) W. L. MARSHALL,
Major, Corps Engineers."

RECALL OF BID FOR DEVELOPMENT AND LEASE OF WATER POWER.

The Clerk presented and read a communication from Clarence Buckingham, in reference to a "proposal for development and lease of water power, presented to the Board at the meeting held August 23, 1899 (page 6011 of the Proceedings) the communication recalling said proposal and requesting the return of check for $50,000. deposited with same.

Mr. Wenter, seconded by Mr. Eckhart, moved that the communication be received and the request contained therein granted.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart. Jones, Mallette and Wenter—seven. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE COMMUNICATION:

"November 8, 1899.

To the Committee on Engineering, Sanitary District of Chicago:

GENTLEMEN—After long deliberation and repeated efforts to so organize a corporation as to utilize the water power you have advertised for lease, I find that the restrictions that you have placed around the use of the power make the life of any lease therefor so uncertain as to utterly discourage the investment of capital in the development of this power.

The advertisement asking for bids was absolute in its character, and the bid I made thereunder fully represented the value of all power, present and prospective, that you had for lease. The action of your Board, after the bids had been received, in limiting the life of any lease to ten years, presents an entirely different proposition, since it precludes the possibility of making the long lease so essential to the immediate work of development necessary, to be done before this power can be utilized.

In view of the short term lease by your board, the capitalists interested with me deem it unsafe to make the large expenditure necessary to develop this power for so short a use; and I therefore recall my bid and respectfully ask that my check of $50,000 deposited therewith be returned to me at your earliest convenience.

Very truly yours,

(Signed) CLARENCE BUCKINGHAM."

ADJOURNMENT.

On motion of Mr. Eckhart, seconded by Mr. Braden, the Board then adjourned.

Joseph F. Haas

Clerk.

PROCEEDINGS

—OF THE—

BOARD OF TRUSTEES

—OF THE—

SANITARY DISTRICT OF CHICAGO.

NOVEMBER 15, 1899.

OFFICIAL RECORD

Published by authority of the Board of Trustees of the Sanitary District of Chicago.

REGULAR MEETING.

The four hundred and sixty-third regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Wednesday, November 15, 1899, at 2 o'clock P. M.

On roll-call, Messrs. Carter, Eckhart, Jones, Kelly, Mallette and Smyth—six members, were present.

In the absence of the President, the Clerk then called the Board to order.

ELECTION OF TEMPORARY CHAIRMAN.

Mr. Eckhart, seconded by Mr. Mallette, moved that Mr. Alex. J. Jones be elected temporary Chairman.

The motion prevailed unanimously, and Mr. Jones was declared duly elected temporary Chairman, and thereupon took the chair.

MINUTES.

The minutes of the regular meetings held November 1 and November 8, 1899, were approved as printed, on motion of Mr. Kelly, seconded by Mr. Smyth.

VOUCHERS.

The Clerk presented the following vouchers:

ENGINEERING DEPARTMENT.

Isham Randolph (expense)	$ 74 03	
W. T. Keating (expense)	71 67	
G. M. Wisner (expense)	84 53	
		$ 230 23

*LAW DEPARTMENT.

Chas. C. Gilbert (expense)		$ 623 05

GENERAL ACCOUNT.

E. Comiskey (laundry)	$ 2 01	
Samuel L. Hanks (electric bells)	3 25	
Douglas Park Livery (livery)	6 00	
E. H. Sargent & Co. (streams examination)	6 00	
Chicago Car Seal and Manufacturing Company (streams examination)	30 00	
Isham Randolph (expense)	18 88	
*Security Deposit Company (rent of offices, November, 1899)	498 33	
*Chicago Telephone Company (services)	595 25	
*The A., T. & S. F. Ry. Co. (train service)	250 00	
		$ 1,409 72

*CONSTRUCTION ACCOUNT.

Hayes Bros. et al. (Sec N, November 1, 1899)	$3,005 24	
Mason, Hoge, King & Co. (Sec. 8, cleaning tunnel)	212 29	
Jas. A. Sackley (Sec. 8, subway)	813 78	
Hayes Bros. (Section 16, Lockport Road)	387 11	
Heldmaier & Neu (Sec. 17, towpath bridge)	187 79	
Heldmaier & Neu (Sec. 17, towing boats, etc.)	760 04	
Gahan & Byrne (Sec. 18, Jefferson Street bridge)	915 08	
Gahan & Byrne (Sec. 18, Dam No. 1, repairs)	569 88	
Gahan & Byrne (concreting clay pockets)	310 78	
Gahan & Byrne (C., R. I. & P. bridge)	19 42	
The Belt Railway Company of Chicago (Sec. K, bridge)	496 89	
Geo. M. Huss (Sec. K, bridge)	201 41	
Geo. M. Huss (Sec. O—P. H. bridge)	515 41	
Chicago Junction Railway Company (Sec. O, eight-track bridge)	153 21	
Chicago Junction Railway Company (Sec. O—P. H. bridge)	131 10	
The A., T. & S. F. Ry. Co. (Sec. 8, track deviation)	69 59	
The A., T. & S. F. Ry. Co. (Sec. O, eight-track bridge)	122 81	
The A., T. & S. F. Ry. Co. (Sec. N, track deviation)	57 55	
Heggie Bros. (Sec. O, pumps)	150 00	
Weaver Coal Company (Sec. O, pumps)	178 63	
Weaver Coal Company (concreting clay pockets)	61 75	
Joseph F. Haas, Clerk (concreting clay pockets)	1,949 24	
Wilcox Bros. (concreting clay pockets)	508 94	
Fred Boehme (concreting clay pockets)	469 38	
Humphrey & Sons (concreting clay pockets)	401 09	
Meacham & Wright (concreting clay pockets)	172 20	
Alfred Wenberg (concreting clay pockets)	152 00	
Halvorson, Richards & Co. (concreting clay pockets)	138 86	
Geo. M. Campbell (concreting clay pockets)	118 18	
N. Stantoh (concreting clay pockets)	35 00	
Illinois Oil Station (concreting clay pockets)	25 98	
Hercules Powder Company (concreting clay pockets)	19 05	
Barrett Hardware Company (concreting clay pockets)	161 95	
Barrett Hardware Company (Sec. 15, paints and supplies)	42 85	
George Whitty (Sec. 17, towing boats)	351 00	
Thomas Moulding Company (Sec. 18, Dam No. 1)	620 00	
Wm. Adam Lumber Company (Sec. 18, Jefferson St. temporary bridge)	52 36	
James B. Clow & Son (Sec. 18, Jefferson Street temporary bridge)	608 25	
		$15,135 49
Grand total		$17,328 49

* To be paid by warrants, with interest coupons attached, drawn against the Tax Levy for 1899.

Mr. Carter, seconded by Mr. Mallette, moved that the vouchers, as read and shown above, be approved and ordered paid.

On roll-call, the vote stood: Yeas—Messrs. Carter, Eckhart, Jones, Kelly, Mallette and Smyth—six. Nays—none.

Upon this result the Chairman declared the motion carried.

REQUISITION.

The Clerk presented the following requisition:

No. 1102, Clerical Department (sundry supplies)..... $41 12

Mr. Kelly, seconded by Mr. Eckhart, moved that Requisition No. 1102, as read and shown above, be allowed.

On roll-call the vote stood: Yeas—Messrs. Carter, Eckhart, Jones, Kelly, Mallette and Smyth--six. Nays--none.

Upon this result, the Chairman declared the motion carried.

MONTHLY REPORT FROM CLERICAL DEPARTMENT.

The Clerk presented a report from the Clerical Department for the month of October, 1899, which was read and by unanimous consent was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, November 1, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I herewith submit the report of the Clerical Department for the month of October, 1899.

The total expenditure of the District for the month was $428,395.29, of which amount the sum of $135,803.88 was paid in Regular Warrants, and $292,591.41 in 1899 Tax Levy Warrants.

The total amount expended on account of, and charged to, the Clerical Department during the month of October was $45.46 for general office expenses.

There are no outstanding liabilities against the Clerical Department, and the expenditure for the present month will be about $1,200.00.

The total amount expended for account of, and charged to, the General Account during the month of October was $2,770.19, divided as follows:

Rent for October, 1899.....	$ 498 33
Printing	303 49
Streams Examination.....	1,049 82
General Expenses.....	918 55
Total	$2,770 19

The expenditure for the present month for the General Account will be about $6,000.00.

Of the total amount of 1896 Tax Levy Warrants issued, there is now outstanding the sum of $11,372.05; of the 1897 Tax Levy Warrants issued, there is now outstanding the sum of $15,000; of the 1898 Tax Levy Warrants issued there is now outstanding the sum of $11,151.80; and of the 1899 Tax Levy Warrants there is now outstanding the sum of $2,082,277.11.

The following is a tabulated statement of total expenditures for the month of October, 1899:

Account.	Regular Warrants.	1899 Tax Levy Warrants.	Total for Month.
Engineering Department.....	$ 374 88	$ 1,011 19	$ 1,385 57
Construction.....	.....	285,023 13	285,023 13
Clerical Department.....	45 46	.....	45 46
Law Department	134 05	1,959 89	2,093 94
Land.....	.....	1,500 00	1,500 00
General.....	196 86	2,573 33	2,770 19
Police	29 25	136 65	165 90
Maintenance	23 88	387 22	411 10
Interest and Premium.....	35,000 00	.....	35,000 00
Bond.....	100,000 00	.....	100,000 00
Total	$135,803 88	$292,591 41	$428,395 29

Respectfully submitted,

(Signed) JOSEPH F. HAAS, *Clerk.*"

REPORT IN REFERENCE TO PAYMENT FOR CERTAIN DISTRICT LANDS BY UNITED STATES GOVERNMENT.

The Clerk presented, and read a report from himself, setting forth that he had received and turned over to the Treasurer of the District a check for the sum of $9,707.50, drawn by the Assistant Treasurer of the United States, the same being in payment for certain lands sold to the United States Government under authority of the Board at the meeting held May 3, 1899 (page 5670 of the Proceedings), being the lands referred to in the communication from W. L. Marshall, United States Engineer, printed on page 6117 of the Proceedings, and designated as the Spry tract; the report being accompanied by the receipt of the Treasurer of the District for said amount.

By unanimous consent the report was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, November 15, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I beg leave to report to your Honorable Body that a check dated November 9, 1899, No. 116,529, and drawn on the Assistant Treasurer of the United States, at Chicago, Illinois, for the sum of nine thousand seven hundred and seven dollars and fifty cents ($9,707.50), has been delivered to me in payment of the following described land, to-wit:

All that part of Lots twenty-four (24) and twenty-five (25) in Green's South Branch Addition to Chicago, being the north fractional part of Section twenty-nine (29), Township thirty-nine (39) North, Range fourteen (14), East of the Third Principal Meridian, excepting the east sixteen and seventy-two hundredths (16.72) acres thereof, lying southerly of a line described as follows:

Beginning at a point in the east line of Throop street, two hundred and sixty-two (262) feet southerly of the northwest corner of Lot twenty-four (24); thence running northeasterly intersecting the east line continued of Lot twenty-five (25) at a point three hundred and four (304) feet southeasterly of the northeast corner of said Lot twenty-five (25) to its intersection with the west line of Throop's Canal, which is ninety-seven hundred and seven and one-half (9,707½) square feet. Said property being situated in the City of Chicago, in the County of Cook and State of Illinois; which was heretofore conveyed by the Sanitary District of Chicago to the government of the United States in pursuance of the order of your Honorable Body (see page 5671 of the Proceedings): and that said check has been by me delivered to F. M. Blount, Treasurer of the District, whose receipt for the same is hereto attached.

Respectfully submitted,

(Signed) JOSEPH F. HAAS,
Clerk."

(One enclosure).

ADDITIONAL EMERGENCY FUND FOR LAW DEPARTMENT.

Mr. Carter presented, and the Clerk read, an order directing that the Clerk of the District draw a warrant on the Treasurer in the sum of $3,000, payable to the order of the Attorney, to be held as an Emergency Fund by said Attorney, subject to his check only, as the needs of the District may require, the said warrant to be charged to the account of Chas. C. Gilbert, Attorney.

Mr. Carter, seconded by Mr. Eckhart, moved that the order be adopted.

On roll-call vote the stood: Yeas—Messrs. Carter, Eckhart, Jones, Kelly, Mallette and Smyth—six. Nays—none.

Upon this result the Chairman declared the motion carried.

The following is the

ORDER:

Ordered, That the President and Clerk of the District be and they are hereby authorized and directed to draw a warrant on the Treasurer, payable to the order of the Attorney, in the sum of three thousand dollars ($3,000.00), and deliver the same to said Attorney, to be held by him as an emergency fund, payable upon his check only, from time to time, as may seem advisable and the needs of the District may require, the same to be charged to the account of Charles C. Gilbert, Attorney; any other order in conflict herewith being hereby repealed.

ADJOURNMENT.

On motion of Mr. Kelly, seconded by Mr. Mallette, the Board then adjourned.

Joseph F. Haas
Clerk.

PROCEEDINGS

—OF THE—

BOARD OF TRUSTEES

—OF THE—

SANITARY DISTRICT OF CHICAGO.

NOVEMBER 22, 1899.

OFFICIAL RECORD.

Published by authority of the Board of Trustees of the Sanitary District of Chicago.

REGULAR MEETING.

The four hundred and sixty-fourth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Wednesday, November 22, 1899, at 2 o'clock P. M.

On roll-call Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—nine members, were present.

President Boldenweck then called the Board to order.

MINUTES.

The minutes of the regular meeting, held November 15, 1899, were approved as printed, on motion of Mr. Smyth, seconded by Mr. Kelly.

VOUCHERS.

The Clerk presented the following vouchers :

*ENGINEERING DEPARTMENT.

The Canal Commissioners (inspectors)		$ 552 00

*GENERAL ACCOUNT.

John F. Higgins (printing proceedings, etc., October)	$ 276 28	
Fred Harvey (sundries)	1,000 00	
Joseph F. Haas, Clerk (expenses)	1,621 10	
		$ 2,897 38

POLICE DEPARTMENT.

Mrs. A. Hartwig (laundry)	$ 4 00	
W. L. Felkner (sundries)	5 40	
*John Larney (coal)	56 00	
		$ 65 40

*CONSTRUCTION ACCOUNT.

Lydon & Drews Company (By-pass, Chicago River)	$12,253 12	
Lydon & Drews Company (By-pass, Chicago River)	7,972 56	
Lydon & Drews Company (Chicago River improvement)	4,156 25	
Lydon & Drews Company (Lake Front Park filling)	4,000 00	
Griffiths & McDermott (By-pass, Chicago River)	6,138 39	
Griffiths & McDermott (By-pass, Chicago River)	2,552 93	
McArthur Bros. Company (Eight-track Bridge)	14,158 12	
McArthur Bros. Company (Eight-track Bridge)	12,381 82	
Hayes Bros. et al. (Sec. O, November 16, 1899)	1,215 20	
Hayes Bros. et al. (Sec. N. November 16, 1899)	2,565 53	
Christie & Lowe (Sec. K, November 16, 1899)	282 00	
Sackley & Peterson (Sec. 8, Lemont Subway)	2,681 88	
Heldmaier & Neu (Sec. 17, Towpath Bridge)	425 78	
Heldmaier & Neu (Sec 17, crib and pumping)	1,024 66	
Heldmaier & Neu (Sec. 17, November 16, 1899)	7,520 63	
Gahan & Byrne (Sec. 18, November 16, 1899)	20,838 56	
The Toledo Bridge Company (Belt Railway Bridge)	53,000 00	
The Toledo Bridge Company (Belt Railway Bridge)	295 31	
The J. G. Wagner Company (Jefferson Street Bridge)	2,476 25	
William Keough (repairing crib at Joliet)	500 00	
Shepard Stone Company (connecting clay pockets)	413 39	
Isham Randolph (Sec. O, sluice, etc.)	370 53	
Lydon & Drews Company (account reserve percentage, By-pass)	20,000 00	
		$177,217 91
Grand total		$180,782 69

*To be paid by warrants, with interest coupons attached, drawn against the Tax Levy for 1899.

Mr. Carter, seconded by Mr. Wenter, moved that the vouchers, as read and shown above, be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—nine. Nays—none.

Upon this result the President declared the motion carried.

REQUISITION.

The Clerk presented the following requisition:

No. 1108. Clerical Department (file boxes and fittings).....$22 00

Mr. Smyth, seconded by Mr. Braden-moved that Requisition No. 1108, as read and shown above, be allowed.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Smyth and Wenter—eight. Nays—none.

Upon this result the President declared the motion carried.

REPORT IN REFERENCE TO DELIVERY OF DEED FOR CERTAIN LANDS TO THE ECONOMY LIGHT AND POWER COMPANY.

The Clerk presented and read a report from himself setting forth the delivery of a deed for certain lands to The Economy Light and Power Company, in accordance with the action of the Board at the meeting held November 8, 1899, (page 6116 of Proceedings).

By unanimous consent, the report was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, November 20, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I have the honor to report that pursuant to instructions con-

tained in the report of the Committee on Engineering, adopted by your Honorable Body at its meeting held November 8, 1899 (page 6116 of the Proceedings) your President and Clerk executed and delivered deed transferring the land described in said report to the Economy Light and Power Company of Joliet, Illinois.

Respectfully submitted,

JOSEPH F. HAAS,

Clerk."

(One enclosure).

REPORT IN REFERENCE TO CAPACITY AND VELOCITY OF CHICAGO RIVER.

The Clerk presented a report from the Chief Engineer transmitting a communication from Thomas T. Johnston, Consulting Engineer, in reference to the capacity and velocity of the Chicago River; said communication being accompanied by an illustrative chart in reference to the matter.

By unanimous consent the report and accompanying communication were ordered printed and, with chart, placed on file.

The following is

THE REPORT:

"CHICAGO, November 22, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I submit herewith communication received from Mr. Thomas T. Johnston, Consulting Engineer, and his report upon and discussion of the capacity of the Chicago River; also the profile and velocity chart which he has had prepared to accompany the said report.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,

Chief Engineer."

The following is

THE COMMUNICATION FROM THE CONSULTING ENGINEER:

CHICAGO, Nov. 18, 1899.

Mr. Isham Randolph, Chief Engineer:

DEAR SIR—The enclosed discussion of the "Capacity of the Chicago River" has been prepared in obedience to your request, and is respectfully submitted for your consideration.

Yours very respectfully,

(Signed) THOS. T. JOHNSTON,

Consulting Engineer."

"CAPACITY OF THE CHICAGO RIVER.

The Chicago River and its various branches constitute a system of artificial navigable waters developed from mere rivulets at the expense of the citizens of Chicago. Step by step this developement has been made during the past sixty years until now these waters play a part of importance in the commerce of the world. The last and most radical step is a consequence of the work of the Sanitary District of Chicago, whereby the dangerous influence of floods have been eliminated, and the southerly branches for a distance of six miles from Lake Michigan have been given a navigable depth of twenty feet and a width suitably increased at the places where the river was formerly too narrow for navigation by large boats, and whereby the river has been made a link in a waterway between the Great Lakes and the Mississippi Valley. It would seem strange if, in return for these great improvements, any attempt should be made by means of legal quibbles or factious opposition to deprive the City of any of its natural rights of drainage through the rivers.

Previous to the excavation of the works of the District the flood waters of the Des Plaines River flowed through the river not only to the detriment of navigation for weeks at a time, but even to the extent of menacing the safety of ships and life.

Not many years ago a flood occured which destroyed ships and bridges and caused great damage. As late as 1892 a flood completely stopped navigation for a period of some days and caused material inconvenience on a number of other days. The works of the District have rendered recurrence of such floods impossible, and but for these same works it would only be a question of time until a disaster similar to that of 1849 did great damage to ships and other property.

Furthermore, while they have increased the capacity of the river for the flow of of water they have also increased its capacity for navigation.

The United States Government has

within the last three years made its first expenditure for the river for improving navigation, and for this purpose deemed a depth of seventeen (17) feet sufficient, but the District has increased the depth to twenty (20) feet, thus enabling the passage of the largest lake steamers when the proper authorities have lowered the several tunnels beneath the river.

When the District undertook its works in the river there was an available navigable depth of about twelve (12) feet at Robey Street, which increased gradually to an available depth of about seventeen (17) feet at Lake Street. The river was not navigable for any material distance for the larger boats. Now there is an available navigable depth of at least twenty (20) feet, enabling the passage of the larger boats throughout the whole distance of six miles from the lake. This improvement is illustrated upon the accompanying drawing showing the old and new levels of the river bottom. The illustration is not complete, however, because the extreme depth under the old condition is shown which is deeper than the old available depth, whereas the new depth shown is the available depth now existing, except at a few localities.

Another drawing herewith shows the places where the river has been widened, thus permitting the passage of boats where they could not pass at all before.

The condition of the river, when the flow contemplated by the District has come into existence, in relation to facilitating drainage and navigation may be considered under two heads as follows:

1st. The physical conditions that will have existence on account of the flow.

2nd. The influence the flow will have upon navigation.

The flow will be 300,000 cubic feet per minute, and as a consequence there will be a slope of the water service from the lake to Robey Street as well as the velocity of current. When the floods of 1892 occurred and the Desplaines River emptied into Lake Michigan through the river, an event which can never occur again, as before explained, the District was fortunate in having an organization skilled in measuring the slopes of water surface, the velocities of current and the magnitude of flow. Many observations were made determining all these things, when the magnitude of flow was nothing or 520,000 cubic feet per minute, or any magnitude between these limits. The records of all this work are in the files of the District. It was observed that when the flow was 300,000 cubic feet per minute, the water surface at Robey Street was two and one-half feet higher than at Lake Michigan, and sloped quite uniformly between the two points. The depth and width and velocity of current was at the same time determined at all points along the river, so that all the conditions existing in passing from Robey Street to the lake became known. The river has since been widened and deepened and corrected, so that passing in the reverse direction from the lake to Robey Street, then, if the slope of water surface be two and one-half feet, the depths and widths will materially exceed those which under similar circumstances were found to exist in the reverse direction in 1892. It follows, therefore, that more than 300,000 cubic feet per minute will now flow through the river if the declivity of water surface be as much as two and one-half feet between the points in question. In fact, so much more that it is calculated that if the flow be 300,000 cubic feet per minute the declivity of water surface will be but two feet. It follows, also, that the velocity of current will be less than existed in 1892, when 300,000 cubic feet per minute was flowing. It may, therefore, be regarded as an established fact that the river will have a capacity for flow in excess of 300,000 cubic feet per minute. The physical conditions which will have existence when this flow happens will be the declivity of water surface, the depth, the width and the velocity of current. As far as drainage is concerned, these will all have entirely satisfactory dimensions. A drawing herewith shows the velocity the current will have from point to point. A report formerly made by the Chief Engineer explains in detail the method used in determining the character of the works which have been excavated in the river to bring about the flow in question.

The influence the flow will have upon navigation will depend upon the resulting depth, width and velocity of current, compared with the depth, width and velocity of current that has had previous existence. Some critics have failed to recognize that a comparison of this nature is involved, and have concluded that the depth, width and velocity of current will not be satisfactory when the flow in question has existence. Even if this conclusion be correct, it is no fault of the District. The real question is as to what the state of affairs will be

under the new conditions compared with what they were under the old conditions. The complete cessation of navigation in the morning and evening hours due to the laws prohibiting the moving of bridges at those hours will have existence after the flow in question takes place, but it will not be the fault of the District, and is therefore not pertinent. The same statement holds true in reference to any additional bridges that may be constructed and to increased traffic over existing bridges. The fact of the matter is that depth and width of the river will be decidedly more satisfactory than previously as a result of the work of the District. The velocity of current is the only other element to be considered, and is the only question in controversy. In some important respects it will be materially less than under former conditions, and in some respects more. In so far as it will be less, the works of the District have produced a desirable and satisfactory result, and it will be less at times when the works of the District prevent Desplaines River floods from flowing through the river. In so far as it will be greater the result will be unsatisfactory in a greater or less degree. The question is, therefore, reduced to the magnitude of the undesirable influence that will be exerted at those times when the velocity of current will be greater than would have had existence under the old conditions. It must be borne in mind that any undesirable influence of this kind is off-set in a greater or less degree by the satisfactory results that will come from the greater depth and width and the diminution of velocity of current in flood times.

The fact that navigation is completely blocked during certain morning and evening hours when the movement of bridges is prohibited, and the fact that new bridges are from time to time erected across the river, establishes the principle that even though the maintenance of conditions favorable to navigation is of great importance, still it must suffer some inconvenience in favor of other public uses of the river. The preservation of the public water supply and the proper drainage of the city would seem to be proper things for which the interests of navigation may be called upon to suffer some inconvenience. Why not further improve the river and reduce the inconvenience to a minimum?, may be asked. Why not put the streets under the river in tunnels and avoid the inconvenience of bridges?, may be asked in reply. As a matter of fact it is proper that the several interests should give and take in the matter of inconvenience. The District has given in every particular except the matter of increased velocity of current at certain times, and this latter the navigation interest should give in a reasonable degree. What is this reasonable degree? The velocity of current which navigation interests may tolerate varies according to attending circumstances. In large streams a velocity of current of seven and eight miles, or even more, an hour is successfully navigated. When the law creating the Sanitary District of Chicago was framed the question of navigagability was considered and debated at length, with the result that it was determined that a velocity of current of three (3) miles per hour would be satisfactory in a channel 160 feet wide and 18 feet deep.

When this District devised its works in the Chicago River, a general velocity of less than one and one-quarter miles per hour was contemplated, the width of the river being generally from 140 to 180 feet wide and the depth 20 feet, or about the dimensions contemplated in the law for the Main Channel of the Sanitary District.

The Illinois and Michigan Canal is very much smaller, and is navigated with great freedom with a velocity of current of about one (1) mile per hour. These velocities of current are, of course, those which have existence when no boats are in the river.

The experience of the Illinois and Michigan Canal, from 60 to 90 feet wide and about 8 feet deep, with a velocity of current about one (1) mile per hour, and nevertheless freely navigable even when the moving boats pass other boats tied at bank, and even though the boats in use occupy a relatively large proportion of the cross section of the stream, and even though up-stream boats in the shape of tows pass down-stream boats similarly arranged, would seem to demonstrate that a general velocity of about one and one-quarter ($1\frac{1}{4}$) miles per hour would give no material inconvenience to the improved Chicago River.

It has been suggested that many boats may be at dock in the river, and thus diminish the available area of the river for the flow of water. This would not be the condition continuously along the line of the river, and where it did occur the velocity met at that particular point would be in general less than two miles per hour. It cannot be held that occasional points of velocity of current ex-

ceeding the figures above given will be the source of unreasonable inconvenience.

The tying of idle boats to dock may easily be subject to police regulation, just as the needless obstruction of city streets by idlers. The Drainage Canal furnishes ample and commodious room for the harboring of waiting vessels. The Illinois and Michigan Canal affords sufficient experience to show that no unreasonable inconvenience need result from the fact that boats may be at dock from point to point along the river.

It has been suggested that boats may get jammed in the river and block it so that flow cannot take place freely. This is again a matter of police regulation under the direction of the harbor master who exists for just such purposes. Furthermore, a boat so poorly navigated as to get in such trouble might properly be punished. However, a jam of damaging character would be a remote contingency. Any boat that can pass over the tunnels under the river, and the District is under no obligations whatever to provide against deeper boats, would always have four feet of water under keel so that a jam of damaging character could hardly come into existence, and if a jam should occur it would be an easy matter to dissolve it. The velocity of current would not anywhere be such as to carry a properly managed boat against dock or bridge protection with dangerous force.

The exact degree in which the proposed velocity of current in the river may be objectionable is not of a nature that can be calculated with mathematical accuracy, and critics have, therefore, some room in which to work. Experience in navigating against velocities of current of magnitudes hereinbefore mentioned will not generally be taken to indicate that the proposed velocity of current will cause unreasonable inconvenience, and in view of the great benefits the works of the District confer on navigation in other particulars the District is entitled to the benefit of any small doubt there may be.

The influence of the velocity of current in the river on navigation is very much like the influence of grades in railways on traffic thereon. Steep grades are objectionable, but the lighter grades may be increased somewhat without any material inconvenience. And it has actually happened that the District, in adjusting its difference with several railroads has created in them steeper grades than previously existed without being called upon to make any corresponding compensation. What the District has done to the river has been, figuratively, to take out the steep and objectionable grades (Desplaines floods, shallow depths and narrow widths) and somewhat increased the light grades (increased velocity of current somewhat). No unreasonable inconvenience will result.

The United States Government holds jurisdiction over the Chicago River, and its officials stand ready to permit a velocity of about one and one-fourth miles per hour in the river. The essence of this permission, as may be readily discovered by reading the correspondence in the matter, is that the consequences of the flow of 300,000 cubic feet per minute shall not cause any material inconvenience to navigation.

The river has differing widths from point to point, and the velocity of current will vary from point to point accordingly, so that any expression of the magnitude of velocity of current must have necessarily a general meaning. An occasional point where the velocity of current is greater, would not operate to cause unreasonable inconvenience if the essence and merits of the correspondence is to be the guide. If a technical advantage is to be taken of the exact wording of the correspondence, then it is a different matter and can be corrected by having the Government officials re-word their correspondence so as to fit the intent thereof accurately.

It may be noted that any inconvenience the velocity of current may cause will not be of a permanent character. Undoubtedly the river will from time to time be improved in the future as it has been in the past and its condition be made better. This is not for the District to undertake. The obligation of the District is to provide that its works leave the river in as good or better condition, all things considered, as it was before the work was undertaken, and this it has amply done. Let the future improvements go on. Viewed in this way, the reasonable inconvenience to which navigation may be subjected temporarily will be eliminated as time goes on, and therefore any criticism that may embarrass the District will be correspondingly unreasonable. Embarrassment of this kind will not be so annoying on account of any expense it might involve from still further improving the river, but on account of the delay, the prolonged use of bad water and loss of life attending poor drainage.

(Accompanied by chart.)

MONTHLY REPORT FROM LAW DEPARTMENT.

The Clerk presented a report from the Law Department for the month of October, 1899, which, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT.

"CHICAGO, November 18, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I have the honor to transmit the report of the Law Department for the month of October, A. D. 1899.

The following are the expenses of the Law Department.

GENERAL EXPENSES.

Legal services	$ 1,090 67	
Books and stationery	22 00	
Expense account	981 27	
		$ 2,093 94

LAND ACCOUNT.

Rent of By-pass (Chicago River)	$ 1,500 00
Total expense for October, 1899	$ 3,593 94

The following seven cases were begun during the month:

City of Joliet vs. The Sanitary District of Chicago and J. Phee, No. 17,807 in the Circuit Court of Will County. This is a bill for an injunction to restrain the Sanitary District of Chicago from removing the bridges across the Desplaines River at Cass and Jefferson Streets. This case, together with the injunction suit involving the same matters instituted by the Sanitary District, have been adjusted; and a stipulation has been entered into providing that both bills be dismissed.

Susie Garrett vs. The Sanitary District of Chicago, in the Circuit Court of Cook County. This is an appeal from a judgment entered by a Justice of Peace for $119.40, for the services of plaintiff as stenographer, in the case of McGuirl vs. The Sanitary District, in the Appellate Court.

Edward Borneman vs. Andrew Blaine et al., No. 199,728, in the Circuit Court of Cook County. This is a bill to foreclose a trust deed on certain premises in which the Sanitary District has no interest, and a default will be entered against it.

In the case of Joseph Kompere vs. The City of Joliet, in the Circuit Court of Will County, the Sanitary District was notified to protect the interests of the defendent. This is being done by Heldmaier & Neu, contractors.

In the case of George F. Fagan vs. Edward J. Coen, No. 199,482 in the Circuit Court of Cook County, the Attorney was instructed to represent the interests of the defendant.

The Sanitary District of Chicago vs. Ricker, Lee & Co., the American Surety Company of New York, et al., Gen. No. 199,913, in the Circuit Court of Cook County. This is a suit in debt for $75,000.00, damages $40,000.00 on the bond of the said contractors for refusing to finish the work required to be done under their contract.

The People of the State of Illinois vs. The Sanitary District of Chicago, in the Circuit Court of Will County, was removed to the Circuit of the United States for the Northern District of Illinois. This is a bill for an injunction to restrain the Sanitary District from reducing the water level of the Illinois and Michigan Canal on the Summit level. An order was entered in the upper Court allowing the complainant to file a transcript of the record of the lower court, and setting the motion to remand for hearing on November 3, 1899.

In the case of John Angus vs. George A. Gindele, Gen. No. 165,190 in the Circuit Court of Cook County, the Master's report and findings were unfavorable to the Sanitary District, and a perpetual injunction was entered restraining the District from removing certain railroad iron on Section "E."

In the case of Mason, Hoge, King & Co. vs. James Reddick, Clerk, and the Sanitary District of Chicago, in the Supreme Court of Illinois, an opinion was rendered reversing the decision of the Appellate Court, and holding that a writ of mandamus should not be granted requiring the Sanitary District to pay certain allowances to the petitioner, unless the petitioner first executed the required receipts.

In addition to the above, the regular routine work of the office and the general care of the matters in its charge has occupied the time of the Department during the month.

Respectfully submitted,

(Signed) CHARLES C. GILBERT,

Attorney."

REPORT IN REFERENCE TO COMPLETION OF CONTRACT FOR SUPERSTRUCTURE FOR C. T. T. R. R. CO.'S BRIDGE, CROSSING THE DESPLAINES RIVER NEAR WEST END OF SECTION E.

Mr. Smyth, Chairman, presented, and the Clerk read, a report from the Committee on Engineering in reference to, and accompanied by, the final certificate of the Chief Engineer as to the completion of the contract with the Wisconsin Bridge and Iron Company for the superstructure for the C. T. T. R. R. Co.'s bridge, crossing the Desplaines River near west end of Section E; the report recommending that the President and Clerk of the District be directed to make payment upon said final certificate, in the usual manner, in the sum of $2,927.20, upon the execution, by said contractor, of a receipt in full of all claims or demands.

Mr. Smyth, seconded by Mr. Carter, moved that the report be adopted and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Smyth and Wenter—eight. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, November 22, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—The Committee on Engineering reports that the Committee has had under consideration the final certificate of the Chief Engineer of the District in favor of The Wisconsin Bridge and Iron Company for the work done by it under its contract with the District, dated August 22, 1898, for the erection of the superstructure of the Chicago Terminal Transfer Railroad Company's bridge across the Desplaines River on Section "E." That the Committee has fully considered the subject matter of said final certificate, and recommends as follows:

That the President and Clerk of the District be authorized and directed to make payment upon said final certificate, in the usual manner in which payments are made, in the sum of twenty-nine hundred and twenty-seven dollars and twenty cents ($2,927.20), the sum found to be due in said final certificate, upon the execution by said contractor, in favor of the District, of a receipt in full, releasing it from any and all claims or demands of whatsoever kind or nature. Attached herewith is said final certificate.

Respectfully submitted,

(Signed) THOMAS A. SMYTH,
Chairman.
JOS. C. BRADEN,
Z. R. CARTER,
FRANK WENTER,
B. A. ECKHART,
THOMAS KELLY,
ALEX. J. JONES,
WM. BOLDENWECK,
Committee on Engineering."

The following is

THE FINAL CERTIFICATE OF THE CHIEF ENGINEER:

"CHICAGO, November 21, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I hereby certify that the Wisconsin Bridge and Iron Company has completed the erection of the superstructure of the C. T. T. R. R. Co.'s Bridge across the Des Plaines River on contract Section "E" in accordance with the terms of its contract with the Sanitary District of Chicago, dated August 22, 1898, to the full satisfaction of the Chief Engineer.

This certificate is given subject to any unaccrued or unmatured obligations imposed by the contract.

The condition of the contract is as follows:

Contract price for superstructure, complete.....	$7,318 00
Amount paid on previous vouchers	4,590 80
Amount due and unpaid..	$2,927 20

Respectfully submitted,

(Signed) ISHAM RANDOLPH,
Chief Engineer."

RESOLUTION IN REFERENCE TO MAJOR W. L. MARSHALL, CORPS OF ENGINEERS, U. S.

Mr. Wenter presented and, seconded

by Mr. Eckhart, moved the adoption of the following

RESOLUTION:

"WHEREAS, It has been publicly announced that Major W. L. Marshall, Corps of Engineers, U. S., for many years representing the War Department, in charge of the Government works in Chicago and vicinity, is to be transferred to the new field of usefulness offered by New York Harbor and the military engineering works of the district of which said harbor forms a part:

Therefore it is fitting that this Board of Trustees give expression to the esteem in which Major Marshall is held by them. In him we recognize an officer of marked professional ability, a man who always has the courage of his convictions and one of sincere and honest purpose to do what he believes to be right.

While the enterprise which we have had in charge has not had his approval, for reasons which he has always frankly avowed, yet he has, since its prosecution was determined upon, given us a manly support in all matters in which we have invoked his aid. To our officers he has always been courteous and helpful, and they and we shall follow him to his new field of usefulness with the most kindly feeling and the heartiest wishes for his prosperity and success.

Resolved, That a copy of these resolutions be engrossed and transmitted to Major Marshall and that they be printed in the Proceedings of this Body."

The motion prevailed unanimously and the President declared the resolution adopted.

ADJOURNMENT.

On motion of Mr. Wenter, seconded by Mr. Kelly, the Board then adjourned.

Joseph F. Haas

Clerk.

PROCEEDINGS

—OF THE—

BOARD OF TRUSTEES

—OF THE—

SANITARY DISTRICT OF CHICAGO.

NOVEMBER 28, 1899.

OFFICIAL RECORD.

Published by authority of the Board of Trustees of the Sanitary District of Chicago.

SPECIAL MEETING.

A special meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Tuesday, November 28, 1899, at 2 o'clock P. M., pursuant to call.

On roll-call Messrs. Boldenweck, Braden, Carter, Jones, Kelly and Smyth—six members, were present.

President Boldenweck then called the Board to order.

CALL FOR MEETING.

The Clerk then read the call for the meeting which is as follows:

"CHICAGO, Nov. 27, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—At the request of President Boldenweck, and in accordance with Rule 4 of the Rules and Regulations, I hereby call a special meeting of the Board of Trustees of the Sanitary District of Chicago, to be held in the rooms of the Board, Security Building, on Tuesday, November 28, 1899, at 2:00 o'clock P. M., for the purpose of considering and passing upon the payment of vouchers, and for such other business as may properly come before the meeting.

Respectfully submitted,

(Signed) JOSEPH F. HAAS,

Clerk."

MINUTES.

The minutes of the regular meeting held November 22, 1899, were approved as printed, on motion of Mr. Kelly, seconded by Mr. Smyth.

VOUCHERS.

The Clerk presented the following vouchers:

*PAY ROLLS.

Engineering Department (Chief Engineer's roll, November, 1899)	$ 1,250 00	
Engineering Department (Division of Construction roll, November, 1899)	7,456 00	
Engineering Department (Division of Drafting and Designing roll, November, 1899)	2,714 43	
Engineering Department (Division of Records roll, November, 1899)	754 17	
		$12,174 60
Clerical Department (Clerk's roll, November, 1899)		1,068 33
Law Department (Joliet roll, November, 1899)	$ 458 33	
Law Department (Attorney's roll, November, 1899)	1,468 33	
		1,926 66
Treasury Department (Treasurer's roll, November, 1899)		166 66
General Account (General roll, November, 1899)	$ 475 00	
General Account (Special roll, November, 1899)	105 00	
General Account (Streams Examination roll, November, 1899)	135 00	
General Account (Trustees' roll, November, 1899)	2,333 33	
		3,048 33
Maintenance Account (Pumping Plant roll, November, 1899)	$ 718 75	
Maintenance Account (Discharge roll, November, 1899)	75 00	
		793 75
Police Department (Marshal's roll, November, 1899)		2,676 82
Total		$21,855 15

LAW DEPARTMENT.

John S. Runnells (services General Counsel, October and November, 1899)		833 34

ENGINEERING DEPARTMENT.

W. M. Plantz & Co. (oil)	$ 47 70	
*Ralph Modjeski (services)	64 19	
		111 89

GENERAL ACCOUNT.

Adams Express Company (streams examination)	$ 30 76	
American Express Company (streams examination)	35 65	
*United States Express Company (streams examination)	139 20	
*Arthur R. Reynolds (streams examination)	278 53	
		484 14

POLICE DEPARTMENT.

Geo. B. Norton (livery)		18 50

HELDMAIER & NEU ACCOUNT.

*Donald Fraser (inspecting bridges)		52 50

*CONSTRUCTION ACCOUNT.

Thomas Moulding Company (Eight-Track Bridge)	$ 2,793 27	
Heggie Bros. (pumps)	56 00	
The Marsh & Bingham Company (lumber)	98 79	
The A., T. & S. F. Ry. Co. (Twenty-sixth Street Bridge)	86 06	
Chicago Junction Railway Company (rental right of way)	60 00	
C. T. T. R. R. Co. (Pan-Handle Bridge)	81 46	
C. T. T. R. R. Co. (Section E Bridge)	98 94	
C. T. T. R. R. Co. (Pan-Handle Bridge)	100 00	
Gahan & Byrne (Sec. 18, extra)	190 61	
Alfred Wenberg (towing)	56 00	

Barrett Hardware Company (hardware)	$ 58 03	
The Joliet Gas Light Company (Sec. 18, sundries)	262 53	
The Canal Commissioners (concreting clay pockets)	104 00	
The Canal Commissioners (dredge, etc.)	2,110 00	
H. O. Stone & Co. (rent warehouse)	250 00	
Joseph F. Haas (Jackson Street improvement)	926 90	
Joseph F. Haas (concreting clay pockets)	1,994 01	
		9,326 50
Grand total		$32,682 02

* To be paid by warrants, with interest coupons attached, drawn against the Tax Levy for 1899.

Mr. Carter, seconded by Mr. Wenter, moved that the vouchers, as read and shown above, be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Jones, Kelly and Smyth—six. Nays—none.

Upon this result the President declared the motion carried.

REQUISITION.

The Clerk presented the following requisition:

No. 1104, Clerical Department (typewriter, etc.) ..... $ 95 00

Mr. Kelly, seconded by Mr. Braden, moved that Requisition No. 1104, as read and shown above, be allowed.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Jones, Kelly and Smyth—six. Nays—none.

Upon this result the President declared the motion carried.

PRELIMINARY REPORT FROM SPECIAL COMMISSIONERS, CHICAGO DRAINAGE CHANNEL, AND REPLY.

The Clerk presented a preliminary report from the Special Commissioners, Chicago Drainage Channel, in reference to their findings as to the works of the Sanitary District, and also the reply of the Trustees to the same.

By unanimous consent, the report and accompanying reply were ordered printed and placed on file.

The following is

THE PRELIMINARY REPORT:

CHICAGO, Ill., November 23, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Our Commission, appointed by Governor Tanner by authority of the Statute of 1889, creating the Sanitary District of Chicago, while not yet able to make final report of our findings, yet think it good public policy to advise your Honorable Board of some of the conclusions reached through our investigation thus far made.

We find that the Statute of 1889 clearly sets forth two propositions.

First. That the flow of water to be introduced into the channel to be constructed should be at the minimum of 300,000 cubic feet of water per minute, or when the population of the District should be more than 1,500,000 inhabitants, that the flow required should be 20,000 cubic feet of water per minute for each 100,000 inhabitants of the District.

Second. That the flow required should be maintained at all times.

Section 20 of the Act provides: "Any channel or outlet constructed under the provisions of this act, which shall cause the discharge of sewage into or through any river or stream of water beyond or without the limits of the district constructing the same, shall be of sufficient size and capacity to produce a continuous flow of water of at least two hundred cubic feet per minute for each *one thousand of the population* of the district drained thereby, and the same shall be kept and maintained of such size and in such condition that the water thereof shall be neither offensive or injurious to the health of any of the people of this State, and *before any sewage* shall be discharged into such channel or outlet, all garbage, dead animals, and parts thereof, and other solids, shall be taken therefrom and said district shall, at the time any sewage turned into or through any such channel or channels, turn into such channel or channels not less than 20,000 cubic feet of water per minute for every 100,000 inhabitants of said district, and

shall thereafter maintain the flow of such quantity of water."

Section 23 provides: "If the population of the district draining into such channel shall at any time exceed 1,500,000 inhabitants, such channel shall be made and kept of such size and in such condition that it will produce and maintain at all times a continuous flow of not less than 20,000 cubic feet of water per minute for each 100,000 of the population of such district at a current of not more than three miles per hour, and if at any time the general government shall improve the Desplaines or Illinois Rivers, so that the same shall be capable of receiving a flow of 600,000 cubic feet of water per minute, or more, from said channel, and shall provide for the payment of all damages which any extra flow above 300,000 cubic feet of water per minute from such channel may cause to private property, so as to save harmless the said district from all liability therefrom, then such sanitary district shall, within one year thereafter, enlarge the entire channel leading into said Desplaines or Illinois Rivers from said district, to a sufficient size and capacity to produce and maintain a continuous flow throughout the same of not less than 600,000 cubic feet per minute, with a current of not more than three miles per hour, and such channel shall be constructed upon such grade as to be capable of producing a depth of water not less than eighteen feet throughout said channel, and shall have a width of not less than one hundred and sixty feet at the bottom."

Section 25 provides: "Any district formed hereunder shall have the right to permit territory lying outside its limits and within the same county to drain into and use any channel or drain made by it, upon such payments, terms and conditions as may be mutually agreed upon, and any district formed hereunder is hereby given full power and authority to contract for the right to use any drain or channel which may be made by any other sanitary district, upon such terms as may be mutually agreed upon, and to raise the money called for by any such contract in the same way and to the same extent as such district is authorized to raise money for any other corporate purposes; provided, that where the united flow of any sanitary districts thus co-operating shall pass into any channel constructed within the limits of the county wherein such districts are located, and which passes into the Desplaines or Illinois Rivers, such united flow shall in no case and at no time be less than 20,000 cubic feet of water per minute for each one hundred thousand of the aggregate of the population of the districts co-operating."

The two propositions being so clearly defined by statute, our Commission deemed it highly important to ascertain the population of the Sanitary District. Our Chief Engineer, Desmond FitzGerald, after having given the question of population of the District thorough investigation, reached the conclusion that there are at least one million, eight hundred thousand inhabitants in the Sanitary District. We are fully convinced that the conclusion is correct and have therefore based our estimates of the quantity of water to be introduced into the Drainage Channel at 360,000 cubic feet of water per minute.

JURISDICTION.

We find, upon investigation, that the Special Commission, under Section 27 of the Act, is charged with the inspection of the Main Channel or Channels and the Chicago River, to ascertain their size and capacity to flow the amount of water required under the law, namely: 20,000 cubic feet per minute for every 100,000 inhabitants; also to pass upon the capacity of the channel being dug from Lockport to the end of the Sanitary Trustees' work in the City of Joliet.

From the surveys made by the Chief Engineer of the Special Commission and his reports to our Commission we find, as follows:

First. That the Main Channel, when freed from all obstructions existing in said channel (occasioned by the Sanitary Trustees not having completed their work in the channel) will more than fully meet the requirements of the law as stated in Section 23, namely: having a depth of fourteen feet in the alluvial part and eighteen feet in the rocky portion of the channel, and will have the size and capacity of carrying the amount of water required by the Special Commission under the act, namely: 360,000 cubic feet of water per minute in the alluvial part and 600,000 cubic feet of water per minute in the rocky portion at a current not to exceed three miles per hour.

Second. The Chicago River, with the dredging done thus far and the improvements made along its banks by the Sanitary District and the United States Government, also by the construction of the by-passes from Adams Street south

on the west bank of the river has, when various temporary obstructions in said river are removed, the capacity of carrying into the Main Channel from Lake Michigan, the amount of 360,000 cubic feet of water per minute at a current not to exceed three miles per hour.

As the application of the Sanitary Board to the Secretary of War for permission to cause the waters of the Chicago River to flow in the Main Channel restricted the velocity of the Chicago River to one and one-quarter miles an hour, and as the permit from the Secretary of War to the Sanitary Board also contained in the preamble said restriction as to a velocity of one and one-quarter miles an hour, the Special Commission were for a long time in doubt as to whether this matter of velocity of one and one quarter miles an hour should be considered by them in determining the capacity of the river in furnishing the quantity of water required by law.

The Special Commission deeming this a matter of utmost importance and in order that they might pursue the right course in their inspection and final conclusion as to the Chicago River, submitted this question to their Counsel for a legal opinion. Said Counsel, after due consideration, reported that, under the act creating the Sanitary District, our Special Commission had no legal right to consider this question, as the law under Section 27 specifically says: "Of a current not to exceed three miles per hour," which velocity is intended for both river and channel. We herewith append the question submitted to our Counsel, Messrs. C. W. Brown of Joliet and Henry Mayo of Ottawa, Illinois, which was as follows:

"Shall the Commission, in estimating the capacity of the Chicago River, from Lake Michigan to Robey Street, take into consideration the velocity of the current?"

In answer to which question the following opinion was returned to us by Counsel:

OPINION.

"This is understood to refer to the current setting from the Lake into the Drainage Channel and will be answered upon that assumption.

"Under Section 23, the Chicago River and Channel (Drainage) would constitute practically one water-way and the limitation of a three mile per hour current, therein, applies to both. That is, the specified velocity, in furnishing the quantity of water, under the provisions of the Sanitary Act, cannot exceed, in river or channel, a current of three miles per hour. Consequently, the duties of the Board require the consideration and determination of this question.

"In connection with the Secretary's letter of October 19, 1899, there were furnished copies of correspondence between the Sanitary District and the Secretary of War, touching permission to improve the Chicago River by widening and deepening, and it is understood that the matter of greatest moment is the status of the Chicago River with reference to Federal control; whether or not your Board should take into consideration, in reaching a final decision, the permission or lack of permission, the Sanitary District has, from the United States authorities, to divert or use the waters of the River under the provisions of the State Law.

"The Chicago River, with its branches, lies wholly within the State of Illinois. By means of Lake Michigan, it affords facilities for commerce between the City of Chicago and ports in other states and countries. It is a navigable river, as has been repeatedly held by courts of last resort. As such, it is subject to the power vested in the general government to regulate inter-state and foreign commerce. This involves the control of its waters, so far as may be necessary to insure free navigation with other waters forming a continuous channel for commerce among the states or foreign ports.

"Subject to this paramount power, vested in Congress, the State of Illinois may regulate and manage the use of the river and its waters; may build dams, abutments for bridges, authorize ferries, construct tunnels, dredge its bed, widen its channel and many other things conducive to the convenience and prosperity of its people. If this power is exercised so as to unnecessarily obstruct or interfere with navigation, Congress may interfere and remove the obstruction. If the power of the State and of Federal Government come in conflict, the latter must control and the former yield. But until Congress acts on the subject, the power of the State over its navigable waters is plenary.

"In the exercise of these powers the State Legislature passed the Act of 1889, under which the Sanitary District is organized. In its passage, and in the acceptance of its provisions, by the citizens of the District, it is to be presumed there was full knowledge of the limita-

tions of power above set forth. The risk of interference, by the Federal Government, was necessarily assumed both by the Legislative Body and those seeking the benefits of the law so enacted. In no way could the State evade or avoid the effects of this superior right of the general government. It is doubtful if Congress even can authorize the diversion of the waters of a navigable river to an extent that it would be a substantial and permanent injury to navigation.

"These principles applying, the Legislature did not and could not, in the Sanitary Act, attempt any control of the Federal relation. It might undoubtedly have provided, and as a condition precedent, that in any unusual use of the Chicago River (such as diversion of its water into the proposed channel) the consent of the government should first be obtained. It might have provided that no tax levy should be made to construct the contemplated work before permission had, and in so doing have protected its citizens from a possible payment of large sums, in taxes, to no purpose, or a useless one.

"However, it was not so done and it is not perceived that your Board of Commissioners has any authority to take cognizance of this matter. To do so would require, practically, to write into the statute, from which it derives its powers, something the Legislature did not see fit to insert.

"Furthermore, should it take notice of this question, it must in effect, organize itself into a court to pass upon the laws of Congress—their scope and effect—to determine by whom and in what manner permission to divert the waters of the Chicago River should be given, to pass upon the sufficiency or insufficiency of any such permit, or, in a word, to exercise the functions of a Federal Court. The conclusion, therefore, is that your Board has no jurisdiction to exercise, or duties to perform, in this regard.

"Moreover, Section 27 *supra*, provides: 'In case said Commissioners shall find said Channel is not constructed in accordance with the provisions of this Act, it shall be their duty to file in any court of competent jurisdiction, in their name as such Commissioners, a bill against said corporation, which bill shall set forth wherein said work is deficient and fails to comply with the provisions of this Act; and said Court shall thereupon issue an injunction without bond against said defendant, enjoining and restrain-it from admitting water or sewage into said Channel until the final order of the Court. And in case said Court, upon hearing, shall determine that said Channel is not constructed in accordance with the provisions of this Act, said injunction shall be continued until the provisions of this Act shall have been fully complied with.'

"A bill filed simply setting forth that the Sanitary District had not obtained permission of the United States authorities to flow water into the Channel, from the River, at a rate exceeding one and one-quarter miles per hour (an insufficient speed) would not appear to fall within the above language. The court, where such bill is directed to be filed, is to continue its injunction only until the provisions of the act have been complied with. The act itself containing no provisions requiring any permit to be first obtained, the court would be without power to continue an injunction on such ground alone.

"It therefore is apparent that, while the velocity of the current in the Chicago River, up to three miles per hour, is an important factor proper to enter into the findings of the Special Commission, the attitude of the Secretary of War, or the Federal authorities, in relation thereto, is not within the scope of its investigations."

SOLIDS.

Under Section 20 we find the following: "And before any sewage shall be discharged into such channel or outlet, all garbage, dead animals and parts thereof, and other solids shall be taken therefrom."

On investigation our Commission is unable to find that any provision has been made by the Sanitary Trustees for the fulfillment of this requirement of the law.

UNFINISHED WORK.

As to the unfinished work, our Commission desire to call the attention of your Board to the following, which has been reported by our Chief Engineer, which should be completed by you in order to meet the requirements of the law and before a final report can be submitted to the Governor.

CHICAGO RIVER.

1. Some dredging still remains to be done on the Chicago River to attain a depth of twenty feet, as planned by the Sanitary District. The Coffer Dams at the By-passes at Adams and Van Buren

Streets have not been removed and a considerable amount of work remains to be done in connection with the Van Buren Street By-pass, principally earth excavation, construction of masonry and bridge work.

2. The Taylor Street bridge has not yet been erected, the superstructure not having arrived upon the ground.

3. At the Chicago Terminal Transfer Railroad crossing very little work has been accomplished. The center pier has not yet been removed from the Channel, the abutments have not been built and no material for the superstructure has arrived upon the ground.

4. At the Eighteenth Street bridge the United Government has nearly completed the work of widening the river on the northerly side of the bridge, but has not yet begun the widening of the river on the southerly side of the bridge.

CHICAGO DRAINAGE CHANNEL.

5. At Campbell Avenue the Sanitary District are working as rapidly as practicable on the construction of the Eight Track bridge at this point. There is a dam across the Channel and below this dam a considerable portion of the Channel is obstructed by the construction of the masonry for the new bridge and by the temporary pile trestles of the railroad companies. The abutment on the northerly side of the river is completed and work is now progressing on the southerly abutment and two piers in the Channel. Earth is also being removed from under the temporary trestles.

6. The Sanitary District are now constructing a small Collateral Channel to connect the West Fork of the South Branch of the Chicago River with the Channel below the site of the Eight Track Bridge. This Collateral Channel is nearly completed and is to be connected with the Main Drainage Channel by a flume which is now in course of construction.

7. About 50,000 cubic yards of earth excavation still remain to be completed between Stations 104 and 110, at the site of the old Illinois Central Railroad crossing. The earth is being removed by steam shovel and scrapers.

8. About 40,000 cubic yards of earth excavation still remain to be removed from the Channel between Stations 122 and 154.

9. At Station 225 a large amount of work remains to be done in connection with the construction of the four-track Belt Railroad bridge. Excavation has just been started for the center pier, and the abutments have not yet been built. About 6,000 cubic yards of earth remain to be excavated. A new temporary trestle is to be erected at the site of this bridge, and preparations are now in progress for this work.

10. At Station 348, two dams about six feet in height exist across the Channel.

11. At Lemont, about 2,000 cubic yards of rock still remain to be excavated from the bottom of the Channel. Work on this excavation is progressing rapidly, and will probably be completed early in the coming month.

DESPLAINES RIVER.

12. The work on the Tail Race below the Controlling Works at Lockport is very nearly completed.

13. At Joliet a large amount of work still remains to be done in connection with the construction of Dam No. 1, and also in connection with the construction of the Channel below this dam. The dam itself is not yet completed, a large amount of rock remains to be excavated in connection with the construction of the Tail Race, and also about 15,000 cubic yards of rock remain to be excavated from the Channel below the dam.

14. There is also a considerable amount of work remaining to be done in connection with the construction of the bridges at Joliet.

In the above has not been included any of the work of cleaning up or repair."

DAMS.

The law in Section 23 requires: "that the Sanitary District shall remove the dams at Henry and Copperas Creek in the Illinois River before any water shall be turned into the said Channel, and while your Board of Trustees, we are informed, have already by resolution ordered the removal of said dams, yet the Special Commission would, as a matter of public policy, advise that said dams be not taken out until the work is fully completed, and the Special Commission are prepared to make their final and favorable report to the Governor.

SUGGESTIONS.

The Special Commission would suggest to your Honorable Board that, in order that we may be assured that the amount

of water required by the law is passed from the Controlling Works down the Desplaines River into the Illinois Valley, that a water gauge be placed at some convenient place at or near the Controlling Works for said purpose.

CONCLUSION.

In conclusion, the Special Commission desire to say that we fully realize the importance of this great work to the citizens of Chicago, also deeply appreciate the urgent necessity for its completion from a sanitary standpoint, and the earnest desire of the Board of Sanitary Trustees to open the Channel. Our Special Commission are as anxious in this respect as the Sanitary Board, and there is no intention on our part to stand on technicalities in passing on this great undertaking. As representatives, however, of the State of Illinois, we have a duty to perform, and must demand that the law be complied with for the protection, health and welfare of all the people concerned.

When the Sanitary Board of Trustees have their work fully completed and are ready to turn over to our Special Commission the Channel unobstructed, for the full and free passage of the amount of water determined by the Special Commission under the law, then our Commission will be found ready and willing to make their final report to the Governor recommending that the law has been complied with and that the water be allowed to be turned in.

Respectfully submitted,

ISAAC TAYLOR,
President.

AL F. SCHOCH,
Secretary.

Special Commissioners Chicago Drainage Channel.

The following is

THE REPLY.

"CHICAGO, November 25, 1899.

To the Honorable Isaac Taylor, President, and Al. F. Schoch, Secretary, Special Commissioners, Chicago Drainage Channel:

GENTLEMEN—The members of the Board of Trustees of the Sanitary District of Chicago have carefully considered the communication of your Honorable Body, submitted to their Board on the 23d inst., and in response to your suggestions desire, respectfully, to submit the following statements on the conclusions of your report, and the conditions of the unfinished work of the Board of Trustees to which you have categorically invited our attention.

While the conclusions of your Honorable Body in regard to the population of the Sanitary District are not vital to present conditions and do not constitute an objection to the opening of the Channel, we feel it our duty, courteously, to dissent from the method of reasoning by which you find it necessary to maintain a flow of 360,000 cubic feet of water per minute through the Drainage Channel at the time of opening. To our minds the only known legal method of ascertaining the population of the Sanitary District is by the last Federal census made under authority of Act of Congress and for the express purpose of determining populations of the states, territories, districts and municipalities for the various purposes of apportionment and legislation thereunder. An examination of this census will demonstrate that the present population will range somewhere between 1,000,000 and 1,100,000. Your method of "estimating" the population is, we respectfully submit, without precedent in any official or legal proceedings in the past, and was certainly not within the intent or expectation of the General Assembly at the time the Sanitary District law was enacted. But, even admitting your right to consider the population of the District by an unofficial estimate rather than by the last Federal census, we respectfully represent that your Honorable Body has ignored the clear intent of the General Assembly and the undoubted spirit of the Act by assuming that the limitation of a flow of 20,000 cubic feet of water per minute for every 100,000 of population applies to the Sanitary District as a whole rather than to the population of the Sanitary District actually draining into the Channel and down the Illinois Valley. The Sanitary District Act, in all its provisions, safeguards and conditions, shows throughout that the literal and essential requirement of the General Assembly was that for every 100,000 of population draining into the Channel there should be for sanitary dilution a flow of 20,000 cubic feet of water per minute. Your Commission has entirely ignored the fact that of the present population of the Sanitary District at least three hundred thousand inhabitants and an area of ninety-one square miles now drain into Lake Michigan and will not drain

into the Drainage Channel and down the Desplaines and Illinois Valley for at least two years, or until the vast intercepting sewer system of the City of Chicago and the conduits of that municipality at 39th street and Lawrence avenue are completed so as to permit the diversion of this sewage from the Lake into the Drainage Channel with a capacity to provide 120,000 cubic feet of lake water per minute for the purpose of dilution for the increasing population. Consequently this vast population of one-fourth of the Sanitary District of Chicago will not drain into the Drainage Channel at all and, therefore, will not offer that pollution which your excessive requirement of 360,000 cubic feet of water per minute would deem it necessary to dilute.

However, as above stated, your Honorable Body has not found our Channel inadequate even for the extreme volume of 360,000 cubic feet of water per minute and this requirement is not of present importance, but we have found it proper to make these observations lest by our silence we should admit our obligation to carry this increased volume through the Chicago River for all time, to the possible detriment of the important navigation interests which must be always considered by our Board in our relations to the Federal Government and the current to be maintained in the Chicago River.

In the consideration of the unfinished work to which your Commission has called our attention we desire to express our belief that the supervision of all work of the Sanitary District of Chicago south of the upper basin at Joliet is entirely beyond the purview of your Board, as the duties of your Honorable Body are defined by the Sanitary District Act. All our work south of the upper basin and through the City of Joliet has been designed and performed entirely for the purpose of protecting the interests of the Sanitary District of Chicago and the taxpayers of this municipality from the damages which will follow by possible over flow, and have no bearing upon the dimensions or capacity of the Drainage Channel as defined by law. Our Channel ends at Lockport, and the rapid declivity and the work performed from the Controlling Works south to the upper basin leaves no doubt as to the downward flow of many times the flow of our Channel as required by law, and none of the work which we have performed south of that point and through the City of Joliet is called for by the Sanitary District Act, but has been planned and executed solely for the protection of the Sanitary District of Chicago. It has never been contemplated that much of this work, especially the superstructure of the bridges and special portions of the tail race and sundry points of excavation, would be completed for several months yet, or for long after the date of our expected opening of the Drainage Channel; and your suggestion that your Commission might consider this protective work as within the purview of your observation and require its completion before the opening of the Channel fills us with dismay and apprehension, and we respectfully suggest that under no degree of diligence and day and night effort could this work be totally completed within such limits as not to prove a serious delay in the opening of our Channel to its early usefulness.

As we stated verbally, in our conference, to your Honorable Body on the 23d inst., at the time of the submission of your communication, we desire now to repeat that an insistance of the actual completion of all the work mentioned by you in the fourteen (14) enumerations of unfinished work would retard for several months yet the opening of the Drainage Channel and prove a great hardship to the inhabitants of this municipality. We shall assume, therefore, in the consideration of this unfinished work and in the explanation given below of the condition of progress at the various points, that the duties of your Honorable Body will be fully performed in requiring such conditions as will permit the legal flow of water per minute at all these points, providing that flow can be secured with a current of not exceeding three (3) miles per hour; and that the uncompleted condition of the sub-structure and superstructure of the various bridges will not receive the consideration of your Honorable Body so long as the work thereon and the coffer-dams erected in connection therewith do not offer such obstruction to the flow of water as to reduce the volume to less than the legal requirements of water per minute or increase the current to a velocity exceeding three (3) miles per hour.

UNFINISHED WORK.

1. Our total work of dredging in the Chicago River is already so far completed as to readily permit the flow of water required by your Commission within the velocity required by law. The small portion of work remaining under contract can be completed without any inconvenience or delay after the opening of the channel.

The Adams street by-pass has been completed and the coffer-dams are now being removed and will be out before the close of the present month.

The by-pass between Quincy street and Van Buren street is fast nearing completion and the present condition is such that the required flow can be admitted through the bridges at this point within the velocity required by law.

2. At Taylor street the center pier of the old structure has been entirely removed and the channel deepened to twenty (20) feet; hence complete provision has been made for flow and navigation, which are in no way dependent upon the completion of the superstructure.

3. At the Chicago Terminal Transfer Railroad bridge the cross-section of the river is now in such condition as to permit a required flow of water per minute within the limit fixed by the Sanitary District Act. The remaining work at this point is under contract according to plans furnished by the Sanitary District to your Honorable Body and is being pushed with all vigor to an early completion.

4. At 18th street bridge the widening to be made by the United States Government is in the interest of navigation and is not wholly to give cross-sectional area for flowage. The present condition at that point will permit the required flow of water with a much less current velocity than required by law.

5. The south abutment of the Campbell avenue bridge and the two piers are rapidly nearing completion and we may confidently fix a date not later than December 6th for the finish. The masses of earth crossing the channel beneath the temporary pile trestles are being cut down to a plane 15 feet below Chicago datum and that plane should be reached on or before December 12th, after which the channel may be filled and the dam east of the railroads be removed by dredging.

6. The plans of the District provide for filling the channel through the collateral channel; a timber flume is now being constructed through which the supply will be admitted and this will be done on or about December 4th. As soon as the channel is filled the collateral channel will be completed connecting with the main channel, its cross-section being 60 feet wide at bottom, 90 feet wide at datum line.

7. The excavation on the line of the old right of way of the Illinois Central Railroad is being carried down to a plane sixteen (16) feet below Chicago datum. This plane will be reached by December 8th.

5-6-7. In a discussion of the channel supply the situations discussed under each of these heads must be taken into consideration. The channel could be supplied with the required flow of water per minute over and across the barriers left under the railroad trestles and on the line of the right of way of the Illinois Central Railroad at a velocity not in excess of two miles per hour, but to reduce velocities and make the conditions at the trestles safer for the operation of the railroads on these temporary structures a part of the flow is admitted through the collateral channel and the velocity of current is thus reduced to about one and two-tenths (1.2) miles per hour.

8. Excavation of the material between stations 122 and 154 is progressing steadily and by the 5th of December ample channel section will be afforded for the required flow of water.

9. The situation at the Belt crossing is the most serious one remaining along the entire Main Channel. A new trestle is being built to carry the tracks of the railroads. A large force is being employed excavating the pit for the center-pier. The concrete base of the center-pier is to be laid as rapidly as possible and the construction thereupon carried up until work is arrested by turning in the water, after which the center-pier is to be surrounded by a coffer-dam and the work completed within its protecting walls. At this place the earth under the now existing trestle is to be excavated down to a plane 18 feet below Chicago datum and this will be accomplished on or before December 10th.

10. As to the two cross dams mentioned under this head, we beg to state provision has been made for these obstructions to be washed by the current into excavations below grade just below their location. These obstructions, however, are not of such a character as to hinder the required flow of water, the channel at this point being 8 feet deeper than that required by law.

11. The rock remaining in the channel under the Santa Fe bridge at Lemont will be all removed on or before December 1st.

12. The work on the tail-race below the Controlling Works will be completed on or before December 1st.

13. The work on Section 17, down as far as to the upper pool and within the jurisdiction of your Honorable Body will be finished on or before December 8th.

As we have above stated we do not regard the work of the Sanitary District south of the upper pool and for the purpose of conducting the water through the City of Joliet without injury to property-owners and the municipality, as within the purview of inspection of your Board of Commissioners; but for the information of your Honorable Body we will state that the work of the Sanitary District at all points in the City of Joliet is being prosecuted with the greatest possible vigor to an early completion.

Ample provision will be made to comply with the requirements of the law with reference to the removal of solids, etc., by instructions to our Police Department before the opening of the channel.

The unfinished work above noted can be finished after the water is turned into the channel as the velocity of the current will not, at any point where the work is being carried on by the Sanitary District, reach the velocity of over two miles per hour. Hence to deprive the people of the Sanitary District of this great benefit would be solely based on technical points and objections, since every assurance exists that the work partly unfinished will be completed at the earliest time possible in view of the fact that it is all under contract, and that it is the desire of every Trustee to have the work at every point enumerated by your Commission pushed with the utmost vigor and energy towards completion.

We therefore request your Honorable Commission to modify some of your conditions based on the opening of the Canal, and we ask another conference at an early date.

Respectfully submitted,

(Signed.) WM. BOLDENWECK,
ALEX. J. JONES,
Z. R. CARTER,
THOMAS KELLY,
THOMAS A. SMYTH,
JOS. C. BRADEN,
FRANK WENTER,
B. A. ECKHART,
J. P. MALLETTE,

Board of Trustees, Sanitary District of Chicago."

REPORT IN REFERENCE TO RELEASE OF BOND ON CONTRACT FOR SUBSTRUCTURE FOR LOCKPORT HIGHWAY BRIDGE CROSSING RIVER DIVERSION CHANNEL ON SECTION 16.

Mr. Carter, Chairman, presented and the Clerk read, a report from the Committee on Finance, with reference to and accompanied by, a communication from Messrs. Griffiths & McDermott, in regard to release of their bond on the contract for the substructure for the Lockport Highway bridge crossing River Diversion Channel on Section 16, the report recommending that the said bond be released, and that Messrs. Griffiths & McDermott be released from further liability thereon.

Mr. Carter, seconded by Mr. Jones, moved that the report be adopted and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Jones, Kelly and Smyth—six. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, November 28, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—The Committee on Finance herewith reports that it has received a communication from Messrs. Griffiths & McDermott requesting that they be released from their bond so that they may not be obliged to pay another premium on the same. This firm had a contract for the construction of the substructure of the Lockport Road Bridge, and the work thereon has been fully completed since the 4th day of April last; and in view of the fact that there are no claims pending against said contractors, there is no further necessity for holding the surety on said bond.

The Committee deems it advisable, therefore, that said bond be released and recommends that said Griffiths & McDermott be released from further liability thereon.

Respectfully submitted

(Signed) Z. R. CARTER,
Chairman.
THOMAS KELLY,
ALEX. J. JONES,
Committee on Finance."

(One enclosure.)

ADJOURNMENT.

On motion of Mr. Smyth, seconded by Mr. Wenter, the Board then adjourned.

Joseph F. Haas

Clerk.

PROCEEDINGS

—OF THE—

BOARD OF TRUSTEES

—OF THE—

SANITARY DISTRICT OF CHICAGO.

DECEMBER 5, 1899.

OFFICIAL RECORD.

Published by authority of the Board of Trustees of the Sanitary District of Chicago.

*ANNUAL MEETING.

The tenth annual meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Tuesday, December 5, 1899, at 2 o'clock P. M., pursuant to rule.

On roll-call Messrs. Boldenweck, Braden, Eckhart, Kelly, Mallette, Smyth and Wenter—seven members, were present.

President Boldenweck then called the Board to order.

**Note—On Wednesday, November 29, 1899, there being no members present at the hour of 2 o'clock P. M., no meeting of the Board of Trustees was held.*

ANNUAL MESSAGE OF THE PRESIDENT

President Boldenweck then presented his annual message, which was read by the Clerk.

Mr. Wenter, seconded by Mr. Smyth, moved that the message be printed and placed on file, and that one thousand copies be printed for distribution.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Eckhart, Kelly, Mallette, Smyth and Wenter—seven. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE MESSAGE:

"CHICAGO, December 5, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—In closing my second

term as President of the Board of Trustees of the Sanitary District of Chicago, it seems proper to refer in a brief way to the work we have accomplished during the past year, and to the unexpected difficulties which have from time to time arisen to obstruct the completion of our labors. With the end now in sight, and we know with certainty that, as far as the construction is concerned, only days are the measure of time between now and the fruition of the hopes of the tax payers of the Sanitary District, we may freely admit that the problems of the past year have at times been so numerous and complicated as almost to discourage the most sanguine of our members in our long years of struggle against mercenary opposition. We, as Trustees, have surely not been derelict in our duties, having labored continually, early and late, to accomplish this one object. Aside from this, great sacrifices and concessions have been made whenever and wherever it was thought necessary and judicious to make them in order to give the Sanitary District value received for the outlay of millions and a daily interest account of thousands of dollars. Handicapped as we were on all sides by obstructions to our work in the form of injunctions issued by the courts and in various other ways, it is yet gratifying to be able to look confidingly to the near future when we shall see the turning in of the waters and the flowing of the same through the sluice gates at Lockport, and thence down the valley of the Desplaines and Illinois Rivers. That we shall see these things before the beginning of the new year seems at this time to be an assured fact. A work of this kind, I believe, has heretofore never been undertaken by a municipality and paid for by the taxpayers of one city, but has always been constructed by the State or Federal Governments. State Governments have greater power than a city or a special municipality, and a Federal Government has greater power than a State Government. It is, therefore apparent that the complications and obstacles placed in our path could not have occurred if this work had been undertaken by either the State or the Federal Government; but the fact remains that in such a case the time needed for completion and the cost would have been far greater than it has been under our methods of construction and land purchases. Under our system not one dollar has been lost to the tax-payers of the District, nor have we permitted any obstacle, which it was within our power to overcome, to interfere with or delay the progress of the work

If you will look up the history of the Hennepin Canal, which was started in August, 1892, and is not yet completed, with a cross section of only 485½ square feet or less than one-tenth of the cross section of the full sized Sanitary Channel in glacial drift, a length of main line seventy-five miles, of feeder twenty-nine miles and an estimated cost of seven millions of dollars, up to date, these facts will verify my assertion.

In my last message I spoke of the year 1898 as the banner year for law suits. While that statement was true at the time, we surely must have reached the climax this year, and I am sure you gentlemen, as well as I, hope that such is the case; and in this connection the old adage is again true: "If we could be warned against our friends, we could take care of our enemies."

The suits disposed of during the present year are as follows:

Edward and Philomene Payette vs. Sanitary District, Superior Court, No. 148,959.

Peter McCullough vs. Sanitary District, Circuit Court, No. 156,775.

A. Markiewizc vs. Mason, Hoge, King & Co., and Sanitary District, Circuit Court, General No. 164,067.

Phoenix Powder Company vs. Weir, McKechney and Sanitary District, No. 7,700.

Geo. F. Blake Manufacturing Company vs. Sanitary District, Supreme Court.

McArthur Bros. vs. Sanitary District, Circuit Court, General No. 176,622.

People, for use District vs. Redieske, et al., Circuit Court, General No. 177,924.

People, for use of District, vs. Redieske, Circuit Court, General No. 177,925.

Mason, Hoge, King & Co. vs. Sanitary District, Supreme Court, No. 182,650.

King, for use of Bridget Mitchell, vs. Sanitary District, Superior Court, No. 195,279.

Bates Machine Company vs. Smith & Eastman and Sanitary District, Appellate Court.

Sanitary District vs. Schuster, et al., Supreme Court, No. 17,233.

Sanitary District vs. Adam, Supreme Court.

Canal Commissioners vs. Sanitary District, Will County Circuit Court.

Allen vs. Sanitary District, Will County Circuit Court.

Sanitary District vs. Chicago and Western Indiana Railroad, Circuit Court, No. 155,827.

Carl Moll vs Sanitary District, DuPage County Circuit Court, No. 5,166.

Ricker, Lee & Co. vs. Sanitary District, United States Appellate Court, No. 23,704.

Mary T. Burke vs. Sanitary District, et al., Circuit Court, No. 197,888.

Sanitary District vs. Joliet, Mount, et al., Will County Circuit Court.

Angus vs. Gindele, et al., Circuit Court, No. 165,190.

People vs. Murray, Kane County, No. 23,894.

People vs. Vaile, Kane County, No. 23,895.

Kent vs. District, Circuit Court, No. 148,033.

Geo. P. Lee vs. District, Superior Court, No. 193,077.

A. Dickinson Company vs. Sanitary District of Chicago, Circuit Court, No. 181,191.

The suits not yet tried and pending are as follows:

Western Stone Company vs. Sanitary District, Supreme Court.

Sanitary District of Chicago vs. Delaware, Lackawanna and Western Railroad Company, County Court, No. 16,964.

Sanitary District of Chicago vs. Chicago Terminal Railroad Company, County Court, No. 17,137.

Sanitary District of Chicago vs. Chicago Terminal Transfer Railroad Company, County Court, No. 17,430.

McArthur Bros. vs. Sanitary District of Chicago, Superior Court, No. 197,437.

Mason, Hoge, King & Co. vs. Sanitary District of Chicago, Circuit Court, No. 194,751.

Belt Railway Company vs. District, Superior Court, No. 199,046.

John V. Farwell Company vs. District et al., Superior Court, No. 200,956.

McMahon & Montgomery Company et al. vs. District, Circuit Court, No. 198,-989.

Susie Garrett vs. District, Circuit Court, No. 198,611.

Commissioners of Highway of Township of Lemont vs. District, Circuit Court, No. 199,601.

City of Joliet vs. District, Circuit Court of Will County, No. 17,807.

District vs. Ricker, Lee et al., Circuit Court, No. 199,913.

Edward Bornemann vs. Blaine et al., Circuit Court, No. 199,720.

Jos. Kompare vs. City of Joliet, Will County Circuit Court.

Geo. Fagan vs. E. J. Coen, Circuit Court, No. 199,482.

People by Attorney General vs. Sanitary District, Circuit Court of the United States, No. 25,350.

Canal Commissioners vs. District et al., Fulton County Circuit Court.

People by, etc. vs. District, Fulton County Circuit Court.

American Forcite Powder Company vs. Guilford et al., United States Circuit Court, No: 24,284.

District for use of Guilford vs. Agnew et al., Circuit Court, No. 174,500.

Jos. O. Wright vs. Western Dredging and Improvement Company et al., Superior Court, No. 193,710.

King, for use of Mitchell, vs. District, Superior Court, No. 195,279.

Edward Cahill vs. Guilford, Agnew, Smith, et al, and Sanitary District, No. 143,959.

Alfred Harley vs. Sanitary District, Circuit Court, No. 159,797.

Western Wheel Scraper Company vs. Sanitary District et al., Circuit Court, No. 156,517.

Bridget McGuirl vs. Sanitary District, Appellate Court, No. 8,469.

Lazarus Silverman vs. Sanitary District, Circuit Court, No. 162,799.

J. J. McCaughey vs. Sanitary District et al., Superior Court, No. 179,197.

Hero vs. Sanitary District, Appellate Court, No. 8,542.

Burke vs. Sanitary District, Appellate Court, No. 8,543.

Myron H. Beach vs. Western Manufacturing Insurance Company and Sanitary District, No. 171,429.

Goerner vs. Sanitary District, Circuit Court, No. 166,547.

Howard, assignee Ketcham Lum. Company, vs. Harlev and Sanitary District, Circuit Court, No. 166,549.

A. Peterson vs. Harlev and Sanitary District, Circuit Court, No. 166,891.

John Lynch vs. Qualey Construction Company and Sanitary District, Circuit Court, No. 159,807.

A. P. Bowers vs. J. B. Brown and Sanitary District, United States Circuit Court, No. 24,505.

Richard Frie vs. Sanitary District, Superior Court, No. 183,631.

Guilford vs. Agnew & Co. and Sanitary District, Circuit Court, No. 174,498.

Guilford vs. Agnew & Co. and Sanitary District, in the Circuit Court, No. 174,499.

P. H. O'Donnell, Adm., vs. Qualey Construction Company and Sanitary District of Chicago, Circuit Court, No. 175,164.

Lemont State Bank vs. Sanitary District of Chicago, Superior Court, No. 186,576.

Smith & Eastman vs. Sanitary District et al., Circuit Court, No. 178,626.

Weir, McKechney & Co. vs. Sanitary District of Chicago, Superior Court, No. 188,300.

Griffiths & McDermott Construction Company vs. Sanitary District of Chicago, Circuit Court, No. 181,343.

Qualey Construction Company vs. Sanitary District of Chicago, Circuit Court, No. 182,654.

Wright, Meysenburg, Sinclair & Carry vs. Sanitary District of Chicago, Superior Court, No. 192,856.

Bridget Mitchell, Executrix, vs. Sanitary District of Chicago, Superior Court, No. 195,286.

Sanitary District of Chicago vs. Glos, Will County, No. 15,754.

Ray vs. Sanitary District of Chicago, Supreme Court, No. 17,233.

The matter of water power was taken up by the Board of Trustees during the year and has not only consumed much of your valuable time, but has occupied a great deal of the time of the City of Chicago and the Civic Federation; and, we, as Trustees, finally yielded owing to the wrong impression created by the investigation of the Civic Federation and the City of Chicago as to the value of the water power and proceeded to advertise for bids during sixty days. At the end of that time only one additional bid had been received and the City of Chicago was not heard from. I am of the firm belief however that the Board erred in putting restrictions of such a nature on the leasing of the water power so as to make it impossible for any corporation to accept the conditions. The first bid received would have brought a revenue to the Sanitary District of at least $100,000.00 per year. Since the withdrawal and the return of the checks to the only two bidders, a meeting has been held which was attended by the Trustees and members of a committee of the City Council who were appointed by the Mayor of the City of Chicago, but nothing has been accomplished so far. I feel confident, however, that definite results may soon follow as the Board was informed that the City could raise the money to construct and equip a plant to utilize all the water furnished by the District. The Trustees wisely informed the City authorities from the outset that the City is expected to compensate the Sanitary District for the privilege. The Sanitary District and the City of Chicago not being co-extensive, we could be enjoined by parties outside of the City who have contributed their share towards the cost of constructing the Canal.

This is merely one of numerous complications which have occurred during the construction of the Channel, growing out of the fact that the City of Chicago and the Sanitary District are different corporations, and not one and the same, as many people believe. The Sanitary District includes about forty-three square miles of territory, and a population of more than 30,000 inhabitants who are not within the corporate limits of the City of Chicago. On the other hand, the entire population of the city living south of Eighty-seventh street, and all the territory lying south of that street, known as the Calumet district, and having an area of forty-five square miles, are not embraced in the boundaries of the Sanitary District. There are also two small districts on the North Side, the Rogers Park district, containing four square miles, and the Norwood Park district, containing two and one-half square miles, which belong to the city but are outside the limits of the Sanitary District. Yet the city authorities have assumed certain powers within, and have secured concessions from, the Sanitary District. The present situation is

anomalous, to say the least, and I now renew the recommendation contained in my annual message of December 15, 1897, in which I urged that steps be taken looking to the annexation to the Sanitary District of all portions of the City of Chicago not included at present within its boundaries.

The credit of the Sanitary District, owing to the strict business principles of the Chairman and Committee on Finance and our able Treasurer, stands in as good condition as the previous year—every item of expense or construction was met at maturity or before. In this connection I cannot refrain from commending the wise policy of a majority of the Board in seeking further aid from the Legislature two years ago in having the tax levy of 1½ per cent. extended for the years 1898-99 as, if this had not been done, there is no question that the District would have had to suspend work for an indefinite time, and the revenue obtained under the one-half of one per cent. tax levy would have barely been sufficient to pay for redeeming bonds and interest and running expenses. For comparison, I submit the following facts for the information of the Trustees and the public in general:

Expenditures, 1890-1898...	$28,230,680 37
Receipts, 1890-1898.....	26,702,184 20
Deficit January 1, 1899.	$ 1,528,496 17
Expenditures, 1899.....	3,431,524 58
	$ 4,960,010 75
Receipts, 1899 (½ of 1 per cent, on 1898 valuation)	1,031,583 76
Deficit, December 1, 1899	$ 3,928,426 99

There have been no bonds issued since those dated January 2, 1899, for $190,000.00, owing to the decrease in the Sanitary District's valuation, which has steadily decreased until the year 1898 when it was $218,000,000.00. This last issue was purchased by the Home Savings Bank at a premium of 3.81 per cent. The outstanding bonds and dates of redemption are as follows:

BOND STATEMENT.

SHOWING TOTAL BONDS ISSUED AND NET AMOUNT OUTSTANDING.

	Date of Issue.	Amount of Issue.	Date of First Payment of Principal.	Amount Outstanding Dec. 1, 1899.	Rate of Interest.	Principal Due.
First Issue	November 1, 1892.	$ 2,000,000	November 1, 1893.	$ 1,300,000	5 per cent	$100,000 yearly, November 1, 1900-1912.
Second Issue	January 1, 1894.	3,000,000	January 1, 1895.	2,250,000	5 per cent	150,000 yearly, January 1, 1900-1914.
Third Issue	August 1, 1894.	3,000,000	July 1, 1895.	2,250,000	5 per cent	150,000 yearly, July 1, 1900-1914.
Fourth Issue	February 1, 1895.	4,000,000	January 1, 1896.	3,200,000	4½ per cent	200,000 yearly, January 1, 1900-1915.
Fifth Issue	February 1, 1896.	800,000	January 1, 1897.	680,000	4½ per cent	40,000 yearly, January 1, 1900-1916.
Sixth Issue	January 15, 1897.	800,000	January 1, 1898.	720,000	4½ per cent	40,000 yearly, January 1, 1900-1917.
Seventh Issue	July 1, 1898.	200,000	June 30, 1918.	200,000	3½ per cent	June 30, 1918.
Eighth Issue	January 2, 1899.	190,000	January 1, 1919.	190,000	3½ per cent	January 1, 1919.
		$13,990,000		$10,790,000		

As near as I can ascertain the assessed valuation of the Sanitary District, for the year 1899, will amount to about $360,000,000. This amount will not permit the District to issue any new bonds to redeem bonds maturing. Under the new Revenue Law the District is only permitted to raise by issuing bonds two and one-half per cent. of the assessed valuation. But, fortunately, under the same law we are still permitted to raise by direct tax one and one-half per cent. of the assessed valuation, which will amount to about $5,400,000. This will enable us to provide for our maturing bonds and interest and the redemption of contractor's warrants issued during the year 1899, amounting to $3,675,710.37.

Following is a table of net receipts and disbursements from the organization of the District to December 1, 1899; also table of construction account to December 1, 1899:

NET RECEIPTS AND DISBURSEMENTS FROM ORGANIZATION TO DECEMBER 1, 1899.

		Receipts.	*Disbursements.*
Administration, sundries			$ 2,158,565 06
Bond Account		$10,790,000 00	
Construction Account			22,301,504 01
General Account			479,868 43
Interest on Deposits		210,784 63	
Interest on Tax Warrants			337,749 58
Interest on Bonds			2,727,793 42
Land Account, right of way			3,163,685 05
Tax Account		18,701,143 61	
Maintenance Account			91,503 35
Tax Levy 1899		2,495,110 37	
Tax Warrants 1896, outstanding		11,372 05	
Tax Warrants 1897, outstanding		15,000 00	
Tax Warrants 1898, outstanding		10,584 80	
*Labor Account, Section E			20,133 45
*Labor Account, Section F			22,118 14
*E. D. Smith & Co			2,400 00
*Heldmaier & Neu			140 00
Capitalization and Maintenance of Bridges			261,548 20
Special Commissioners, Chicago Drainage Channel			35,590 01
Total disbursements			$31,602,598 70
Cash, Emergency Fund, sundries			15,019 35
Cash, Treasurer's Balance, Dec. 1, 1899	$616,624 69		
Less unpaid warrants	247 28		
True balance			616,377 41
Totals		$32,233,995 46	$32,233,995 46

*NOTE—These items are charges against contractors.

SANITARY DISTRICT OF CHICAGO.

CONDITION OF CONSTRUCTION ACCOUNT DECEMBER 1, 1899.

DESIGNATION.	Approximate Estimate.	Amount Vouchered.	Amount Unvoucher'd.
Chicago River	$ 724,687 87	$ 549,011 01	$ 175,676 86
Section O	575,288 67	502,506 96	72,781 71
" N	270,455 53	250,077 06	20,378 47
" M	161,471 81	161,471 81	.....
" L	217,287 06	217,287 06	.....
" K	326,572 19	311,524 51	15,047 68
" I	289,846 00	289,846 00	.....
" H	326,265 66	326,265 66	.....

CONDITION OF CONSTRUCTION ACCOUNT DECEMBER 1, 1890—*Continued.*

DESIGNATION.	Approximate Estimate.	Amount Vouchered.	Amount Unvoucher'd.
Section G	$ 398,638 40	$ 398,638 40	.....
" F	417,032 13	382,928 75	$ 34,103 38
" E	798,630 05	779,264 62	19,365 43
" D	594,919 83	594,919 83	.....
" C	484,259 40	484,259 40	.....
" B	498,587 76	498,587 76	.....
" A	917,325 81	917,325 81	.....
" 1	1,356,510 66	1,350,330 83	6,179 83
" 2	940,975 86	940,975 86	.....
" 3	842,601 35	841,291 35	1,310 00
" 4	1,059,088 66	1,058,638 66	450 00
" 5	755,860 92	755,860 92	.....
" 6	745,016 33	745,016 33	.....
" 7	797,495 93	797,495 93	.....
" 8	1,016,183 39	1,013,936 22	2,247 17
" 9	819,424 30	819,424 30	.....
" 10	1,009,136 70	1,009,136 70	.....
" 11	841,571 92	841,571 92	.....
" 12	875,516 08	874,280 72	1,235 36
" 13	829,388 19	821,044 61	8,343 58
" 14	933,057 10	931,457 10	1,600 00
" 15	552,033 46	552,033 46	.....
" 16	76,667 51	67,206 35	9,461 16
" 17	453,822 10	349,137 68	104,684 42
" 18	402,389 26	317,292 35	85,096 91
Disposal Works at Lockport	* 264,096 42	263,946 42	150 00
Repairing I. and M. Canal	18,052 85	18,052 85	.....
Van Buren Street approach span, Chicago River	24,495 87	6,990 00	17,505 87
Taylor Street Bridge, Chicago River	81,040 20	30,918 78	50,121 42
C. T. T. R. R. Co.'s Bridge, Chicago River	372,384 96	86,319 03	286,065 93
Southwest Boulevard Bridge, M. C., Sec. O	149,962 42	145,734 20	4,228 22
Pan Handle R. R. Co.'s Bridge, M. C., Sec. O	† 531,014 55	256,670 98	274,343 57
C., M. & N. R. R. Co.'s Bridge, M. C., Sec. N	182,980 74	170,980 74	12,000 00
C., M. & N. R. R. Co.'s Bridge, Kedzie Av., Sec. N	14,515 47	14,515 47	.....
Kedzie Avenue Bridge, M. C., Sec. N	48,518 58	43,118 58	5,400 00
A., T. & S. F. Ry. Co.'s Bridge, M. C., Sec. N	82,591 99	80,591 99	2,000 00
Belt Railway of Chicago's Bridge, M. C., Sec. K	156,601 39	56,719 71	99,881 68
A., T. & S. F. Ry. Co.'s Bridge, M. C., Sec. G	114,305 72	114,305 72	.....
A., T. & S. F. Ry. Co.'s Bridge, D. R., Sec. F	19,210 73	19,210 73	.....
Lyons-Summit Road Bridge, D. R., Sec. E	13,220 47	13,220 47	.....
Lyons-Summit Road Bridge, M. C., Sec. F	41,193 18	41,193 18	.....
C. T. T. R. R. Co.'s Bridge, M. C., Sec. E	50,682 75	50,682 75	.....
C. T. T. R. R. Co.'s Bridge, D. R., Sec. E	16,912 40	13,974 49	2,937 91
Willow Springs Highway Bridge, M. C., Sec. 1	22,968 52	22,968 52	.....
A., T. & S. F. Ry. Co.'s Bridge, M. C., track deviation and Stephens Street Subway, Sec. 8	140,602 08	110,298 70	30,303 38
A., T. & S. F. Ry. Co.'s Bridge, D. R., Sec. 8	23,275 07	23,275 07	.....
Lemont Highway Bridge, M. C., Sec. 8	21,227 39	21,227 39	.....
Lemont Highway Bridge, D. R., Sec. 8	22,329 89	22,329 89	.....
Western Stone Co.'s Bridge, D. R., Sec. 10	15,983 63	15,983 63	.....
Romeo Highway Bridge, M. C., Sec. 12	30,085 23	30,085 23	.....
Lockport Highway Bridge, Sec. 16	16,943 08	16,748 16	194 92
Wire Mills Road Bridge, Sec. 16	17,429 51	17,104 67	324 84
E., J. & E. R. R. Co.'s Bridge bet. Secs. 16 and 17	41,984 62	41,984 62	.....
Towpath Bridge, Sec. 17	29,066 85	613 57	28,453 28
Cass Street Bridge, Sec. 18	38,265 75	.....	38,265 75
Jefferson Street Bridge, Sec. 18	45,627 25	6,363 44	39,263 81
C., R. I. & P. R. R. Co.'s Bridge, Sec. 18	36,608 00	7,253 75	29,354 25
Crib work at Joliet	35,917 56	35,917 56	.....
Bridges not yet contracted for	42,000 00	.....	42,000 00
Total estimate of Construction Account	$24,070,103 01	$22,549,346 22	$ 1,520,756 79
Capitalization of Bridges	410,000 00	261,548 20	148,451 80
Totals	$24,480,103 01	$22,810,894 42	$ 1,669,208 59

*This amount excludes hydraulic fittings and sluice gate traveler.
†Original bid on superstructure used in this estimate.

As an offset to the numerous obstacles we have encountered in previous years, and especially during the last year of my administration, it is gratifying to me, and must have been to you, to receive the preliminary report of the special commission appointed by the Governor to inspect the Channel, as prescribed by law. It is true that the final permit has not been granted by the Governor, owing to matters yet to be adjusted, but it is now a matter of record and is a notice to the entire valley people that we, as Trustees, have not tried to evade the law, nor have we done so in any manner, but, on the contrary, have carried it out to the letter. The special commission, in my opinion, has worked faithfully from the time its members were appointed, and I feel confident that they will not stand on technicalities and thereby delay the opening of the Channel beyond the beginning of the year 1900.

In my last message your attention had been called to the improvement of the Calumet region. Meetings were held with citizens of said region and the members of the Board, and, while a majority of the citizens present were in favor of paying their just proportion towards our Main Channel, the more powerful minority was opposed to such a proposition. A bill was finally prepared by the majority and presented to the legislature for the purpose of bringing all contiguous territory into the Drainage District, but this bill was defeated by the powerful minority and it will be some time before the matter can be again taken up. The next General Assembly will not meet until January, 1901.

The North Branch should also not be lost sight of, and I have been informed that there is a movement on foot for the City of Evanston to come into the Sanitary District. This must come sooner or later, and when it does come about, a navigable waterway should be constructed from the lake, permitting vessels to come in from the north instead of entering the present harbor. This would avoid a great deal of delay and annoyance to citizens and traffic between the North and South Sides, as now all ships, with freight either for the North or South Branch, must enter at the one place.

As the water is soon to be flowing through the Channel, and boats will be able to navigate the same as far as Lockport, it would be well for the Board of Trustees to advertise and receive proposals for the purchase of the stone and clay excavated from the Channel and deposited along its banks. And, in this connection, I would advise that it be so disposed of as not to interfere with, or work a hardship to, merchants in the same line of business, who have contributed largely to the cost of the Channel. But the time is not far distant when land along the Channel will be valuable for manufacturing and elevator purposes, and as the rock and clay would bring a large revenue, you would at the same time be preparing the District lands for this purpose.

As it seems impossible for the people of the Calumet region to come together and agree on a bill, and also to agree with the members of this Board as to their just share to be by them paid towards the Main Channel, and although the Thirty-ninth Street conduit, when completed, will be sufficient to dilute the sewage of an increased population of at least 500,000, yet it would seem to me advisable for this Board to locate another channel to the south, inside of the limits of the Sanitary District. The taking of a new census in 1900 having been ordered, and the fact that the same will possibly be completed in a few years, we should be prepared to meet the demands of the law in regard to the additional water for an increased population.

I make this suggestion, however, more as a matter of precaution and economy than otherwise, because I think it probable that the present Channel will be of sufficient capacity to meet the demands of the increased population, as shown by the new census. Still the fact remains that sooner or later the flow of water must be increased, and it may be the part of wisdom from an economical standpoint alone to begin making arrangements now for securing the increased supply when needed Land is comparatively cheap at present, and a right of way for the auxiliary Channel can be purchased now for much less than it will probably cost in the future. Besides, we must find a population willing to co-operate with us in the construction of the auxiliary Channel. If the people of the Calumet region persist in declining to come to an understanding with us, then we must, of course, look elsewhere.

Now that the gigantic enterprise, with which we have been actively connected, some of us, almost from its inception, is nearing completion, it is attracting the attention of the people of the Mississippi Valley who regard the

Sanitary Channel as an important link in the deep waterway, which they hope to see constructed from Lake Michigan to the Mississippi River. Naturally, it has been the primary object of this Board to build a Sanitary Channel for the City of Chicago, but we have never overlooked the possibility of this Channel becoming part of a great waterway to be under the control of the Government of the United States. The work we have done has excited the interest of the civilized world. Engineers from all parts of the United States, and from the nations of Europe have come here to inspect it, and have gone away praising not only the Canal, but the enterprise and public spirit of the people of Chicago who contributed the money for constructing it. They regarded it as something more than a mere Drainage Channel—they recognized that it could be utilized as a ship canal, capable of accommodating the largest lake craft. The character of the work and the capacity of the Channel alike indicate that it was intended to be a ship canal.

I respectfully suggest that the members of this Board should do all they can, in their individual as well as their official capacity to assist the movement now under way to connect Lake Michigan and the Mississippi River with a water-way of at least sufficient dimensions to enable vessels which now come to the river as far as St. Louis to continue their journey to Chicago and other lake ports. The money to extend this water-way beyond Lockport must, of necessity, be appropriated by the General Government. It is estimated that an expenditure of $25,000,000 will complete the water-way from Lockport to the mouth of the Illinois River, giving a sufficient depth in the lower Illinois to accommodate the character of ships mentioned. It is inconceivable that Congress would hesitate to appropriate the amount named, when the Sanitary District alone has expended, or will have expended, not less than $35,000,000 when the work is finished, on the Canal from Chicago to Lockport.

The opening of such a water-way would not only be of immense value to the merchants and manufacturers of Chicago, but would be of great benefit to the farmers of Indiana, Michigan, Wisconsin and Illinois. It would have the effect to greatly reduce the charges for freight transportation, and in the one item of grain shipments alone would probably save to the farmers of the middle west in a single year a sum of money equal to the cost of its construction.

It gives me great pleasure to testify to the diligence and efficiency with which the officials, sub-officials and employes of the Sanitary District have discharged their duties during the year just ended. In conclusion, I return my sincere thanks to the members of this Board, who have at all times treated me with the utmost courtesy, and who, by their capable and hearty assistance, have done much to render less arduous and exacting the manifold duties imposed upon me as your presiding officer. Grateful for the confidence resposed in me and the honors shown me by associates, this message is

Respectfully submitted,

WILLIAM BOLDENWECK,

President."

ELECTION OF PRESIDENT.

The election of President of the Board being then in order, President Boldenweck called Mr. Eckhart to the Chair and Mr. Wenter, seconded by Mr. Kelly, nominated Mr. William Boldenweck for President of the Board of Trustees of the Sanitary District of Chicago for the ensuing year.

There being no further nominations, Mr. Kelly moved that the President be elected by roll-call.

The motion prevailed unanimously, and it was so ordered.

On roll-call, on the election of President, the vote stood: For Mr. Boldenweck—Messrs. Braden, Eckhart, Kelly, Mallette, Smyth and Wenter—six.

Upon this result the Chairman declared Mr. William Boldenweck duly elected President of the Board of Trustees of the Sanitary District of Chicago for the ensuing year.

The Chairman then called President Boldenweck to the chair, who thereupon took his seat and thanked the Board for the honor conferred.

ADJOURNMENT.

On motion of Mr. Kelly, seconded by Mr. Mallette, the tenth annual meeting of the Board of Trustees of the Sanitary District of Chicago then adjourned.

Joseph F. Haas

Clerk.

PROCEEDINGS

—OF THE—

BOARD OF TRUSTEES

—OF THE—

SANITARY DISTRICT OF CHICAGO.

DECEMBER 6, 1899.

OFFICIAL RECORD.

Published by authority of the Board o Trustees of the Sanitary District of Chicago.

REGULAR MEETING.

The four hundred and sixty-fifth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Wednesday, December 6, 1899, at 2 o'clock P. M.

On roll-call Messrs. Boldenweck, Braden, Carter, Eckhart, Kelly, Mallette, Smyth and Wenter—eight members, were present.

President Boldenweck then called the Board to order.

MINUTES.

The minutes of the special meeting, held November 28, 1899, were approved as printed, on motion of Mr. Kelly, seconded by Mr. Eckhart.

VOUCHERS.

The Clerk presented the following vouchers :

LAW DEPARTMENT.

The Waukesha Water Company (water) ..... $	6 75
Callaghan & Co. (law books)	10 75
Edwards & Hancock (stationery)	14 05
Edward R. Nadelhoffer (stenographic fees)	5 00
E. C. Shaw (stenographic fees)	5 00
W. H. Edwards & Co. (stenographic fees)	10 42

Richard H. Wyman (stenographic fees)	$ 24 45	
*Murray J. Brady (stenographic fees)	112 75	
*Frank Vander Bogart, clerk (court costs)	104 65	
*John W. Nadelhoffer (expense)	69 96	
		$ 363 78

GENERAL ACCOUNT.

E. D. Kilbourne, M. D. (streams examination)	$ 19 25	
*Security Deposit Company (rent of offices, December, 1899)	498 33	
		517 58

POLICE DEPARTMENT.

Mrs. A. Hartwig (laundry)	$ 5 00	
John Weigmuth (teaming)	8 00	
Michael Lambert (teaming)	9 00	
		22 00

*CONSTRUCTION ACCOUNT.

Lydon & Drews Company (Chicago River dredging)	$ 5,187 00	
Lydon & Drews Company (Lake Front Park filling)	4,992 00	
Lydon & Drews Company (By-pass, Chicago River)	9,910 86	
Lydon & Drews Company (By-pass, Chicago River)	6,836 31	
Mason, Hoge, King & Co. (Sec. 8, December 1, 1899)	4,921 87	
Sackley & Peterson (Sec. 8, subway)	4,134 37	
Hayes Bros. (Sec. 16, December, 1, 1899)	3,830 52	
Heldmaier & Neu (Sec. 17, December 1, 1899)	13,278 80	
Heldmaier & Neu (Sec. 17, account reserve percentage)	10,000 00	
Gahan & Byrne (Sec. 18, December 1, 1899)	28,239 75	
Christie & Lowe (Sec. K, December 1, 1899)	738 37	
The Toledo Bridge Company (Sec. K, Belt Railway Bridge)	1,721 21	
Hayes Bros. et al. (Sec. N. December 1, 1899)	2,889 55	
Hayes Bros. et al. (Sec. O, December 1, 1899)	3,836 80	
McArthur Bros. Company (Sec. O—Eight-track Bridge)	23,841 63	
McArthur Bros. Company (Sec. O—Eight-track Bridge)	22,363 64	
Thomas Moulding Company (Sec. O—Eight-track Bridge)	10,666 48	
Green's Dredging Company (Sec. O—Collateral Channel)	2,888 19	
The A., T. & S. F. Ry. Co. (Sec. 8, deviation)	2,766 79	
Joliet Railroad Company (Jefferson Street Bridge)	483 71	
The Marsh & Bingham Company (Belt Railway Bridge)	969 89	
Continental Bolt and Iron Works (Belt Railway Bridge)	289 25	
Meacham & Wright (concreting clay pockets)	219 70	
Ft. Wayne Foundry and Machine Company (Van Buren St. By-pass)	123 50	
McArthur Bros. Co. and Winston & Co. (P. H. Temporary Bridge)	117 99	
		165,247 68
Grand total		$166,151 04

*To be paid by warrants, with interest coupons attached, drawn against the Tax Levy for 1899.

Mr. Carter, seconded by Mr. Wenter, moved that the vouchers, as read and shown above, be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Kelly, Smyth and Wenter—seven. Nays—none.

Upon this result the President declared the motion carried.

REQUISITION.

The Clerk presented the following requisition:

No. 1105. Clerical Department (file boxes) $24 00

Mr. Carter, seconded by Mr. Smyth, moved that Requisition No. 1105, as read and shown above, be allowed.

On roll-call the vote stood: Yeas—

Messrs. Boldenweck, Braden, Carter, Eckhart, Kelly, Smyth and Wenter—seven. Nays—none.

Upon this result the President declared the motion carried.

MONTHLY REPORT ON EMPLOYES.

The Clerk presented a report showing the number of persons in the employ of the District for the month ending November 30, 1899, which was read, and by unanimous consent was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, December 1, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the month ending November 30, 1899, as the same have been reported to me:

Engineering department	97
Maintenance account	8
Clerical department	5
Law department	8
Treasury department	1
Police department	28
General	5
Total employes	152

Respectfully submitted,

(Signed) JOSEPH F. HAAS,
Clerk."

MONTHLY REPORT FROM CLERICAL DEPARTMENT.

The Clerk presented a report from the Clerical Department for the month of November, 1899, which was read and, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, December 1, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I herewith submit the report of the Clerical Department for the month of November, 1899.

The total expenditure of the District for the month was $414,269.91, of which amount the sum of $856.10 was paid in Regular Warrants, $412,833.26 in 1899 Tax Levy Warrants, and the sum of $580.55 by the Treasurer of the District, for which no warrant was required. Of the amount paid by the Treasurer the sum of $567.00 was for 1898 Tax Warrants redeemed, and $13.55 for interest on same.

The total amount expended on account of, and charged to, the Clerical Department during the month of November was $2,149.67, of which amount the sum of $2,136.67 was for salaries, and $13.00 for general office expenses.

There are no outstanding liabilities against the the Clerical Department and the expenditure for the present month will be about $1,200.00.

The total amount expended for account of, and charged to, the General Account during the month of November was $12,239.96, divided as follows:

Rent for November, 1899	$ 498 33
Printing	276 28
Streams Examination	1,803 96
Salaries	5,777 67
Advertising	11 70
General Expenses	3,276 77
Telephone service	595 25
Total	$12,239 96

The expenditure for the present month for the General Account will be about $6,000.00.

Of the total amount of 1896 Tax Levy Warrants issued, there is now outstanding the sum of $11,872.05; of the 1897 Tax Levy Warrants issued, there is now outstanding the sum of $15,000; of the 1898 Tax Levy Warrants issued, there is now outstanding the sum of $10,584.80; and of the 1899 Tax Levy Warrants, there is now outstanding the of $2,495,-110.37.

The following is a tabulated statement of total expenditures for the month of November, 1899:

Account.	Regular Warrants.	1899 Tax Levy Warrants.	Paid by Treasurer.	Total for Month.
Engineering Department	$ 352 20	$ 27,761 25	.....	$ 28,113 45
Construction	.....	349,436 66	.....	349,436 66
Clerical Department	18 00	2,136 67	.....	2,149 67
Law Department	97 10	5,581 73	.....	5,678 83
Treasury Department	.....	333 33	.....	333 33
General	284 78	11,955 18	.....	12,239 96
Police	39 75	5,370 52	.....	5,410 27
Maintenance	69 27	2,306 91	.....	2,376 18
Joseph F. Haas, Clerk	.....	4,811 01	.....	4,811 01
Heldmaier & Neu	.....	140 00	.....	140 00
C. C. Gilbert, Attorney	.....	3,000 00	.....	3,000 00
1898 Tax Warrants redeemed	.....	.....	$ 567 00	567 00
Interest on Tax Warrants redeemed	.....	.....	13 55	13 55
Total	$ 856 10	$412,833 26	$ 580 55	$414,269 91

Respectfully submitted,

(Signed) JOSEPH F. HAAS, *Clerk.*"

MONTHLY REPORT FROM TREASURY DEPARTMENT.

The Clerk presented a report from the Treasury Department for the month of November, 1899, which was read and, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT:

Receipts.

Balance on hand at date of last report		$ 440,234 43
From County Treasurer, Sanitary District Tax Account	$ 200,000 00	
From County Treasurer, Sanitary District Tax Account	100,000 00	
From J. F. Haas, Clerk, Engineering Department	15 00	
From J. F. Haas, Clerk, Engineering Department	2 50	
From J. F. Haas, Clerk, Land Account	50 00	
From J. F. Haas, Clerk, Land Account	9,707 00	
From J. F. Haas, Clerk, Land Account	30 00	
From J. F. Haas, Clerk, Construction Account	2,110 94	
From Chicago National Bank, Interest Account	747 10	
Total cash received for month		$ 312,663 04
		$ 752,897 47

Disbursements.

Clerical Department	$ 13 00
Engineering Department	294 00
Law Department	97 10
General Account	212 31
Police Department	17 25
Maintenance Account	58 57
Bond Account	100,000 00
Interest and Premium Account	35,000 00

Tax Warrant Paid, Levy 1898	$ 567 00	
Interest on Tax Warrant, Levy 1898	13 55	
Total cash disbursed		$ 136,272 78
Balance this date, in banks as per schedule endorsed hereon		616,624 69
		$ 752,897 47

Schedule.

Chicago National Bank	$ 590,685 91
National Bank of Illinois	25,938 78
Total	$ 616,624 69

CHICAGO, December 1, 1899. (Signed) F. M. BLOUNT, *Treasurer.*

By S. P. BLOUNT, *Asst. Treasurer.*

ORDER IN REFERENCE TO PAYMENT OF EXPENSES OF SPECIAL COMMISSIONERS, CHICAGO DRAINAGE CHANNEL.

Under the head of new business, Mr. Carter presented, and the Clerk read, an order that the Clerk be directed to draw a warrant on the Treasurer of the District in the sum of $1,580.65 in favor of the Clerk, said amount to be treated as a special emergency fund to be used in the payment of pay-roll and bills incurred for the month of November, 1899, by the Commissioners appointed by the Governor of the State of Illinois, under Section 27 of the Sanitary District Act; and that the Clerk shall pay said Commissioners the amount shown to be due according to the schedule accompanying said order, duly certified by said Commissioners.

Mr. Carter, seconded by Mr. Braden, moved that the order be adopted.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Kelly, Mallette, Smyth and Wenter—eight. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE ORDER:

Ordered, That the Clerk be, and he is hereby, directed to draw a warrant on the Treasurer of the District, in the sum of fifteen hundred eighty dollars and sixty-five cents ($1,580.65), in favor of himself, said amount to be treated as a special emergency fund, to be used in payment of pay roll and bills incurred for the month of November, A. D. 1899, by the Commissioners appointed by the Governor of the State of Illinois, under and by virtue of Section 27 of an act entitled, "An act to create Sanitary Districts and to remove obstructions in the Desplaines and Illinois Rivers, and the dams at Henry and Copperas Creek," ap- May 29, 1889, in force July 1, 1889.

Ordered, Further, That the Clerk shall pay to said Commissioners the amount shown to be due according to a schedule of pay roll and bills, incurred as aforesaid, duly certified by said Commissioners.

The following is

THE SCHEDULE:

"ITEMS OF EXPENSE, PAY ROLL OF ENGINEERING DEPARTMENT AND SALARIES OF SPECIAL COMMISSIONERS FOR THE MONTH OF NOVEMBER, 1899.

Engineering Department.

H. A. Potwin, Assistant Engineer, November salary	$ 166 66
H. A. Potwin, Assistant Engineer, additional expenses for November	5 57
E. Zarbell, draughtsman, November salary	100 00
E. Zarbell, additional expenses, September, October and November	18 75
Desmond Fitzgerald, additional expenses for November	8 75
J. B. Clow & Son, supplies	3 77
Proprietors locks and canals, Merrimack River, reports	150 00
Edwards & Hancock Company, supplies	2 35
Oliphant Printing Company, supplies	5 00
Binner Engraving Company, maps and tracings	63 50
	$ 524 35

Office Department.

Typewriter rent to December 22, 1899	$ 7 00

Waukesha Water Company, coupons	$ 3 75
Chicago Towel Company, November rent	2 25
Security Deposit Company, rent and light to December 1, 1899	76 50
Miss Selby, stenographer and clerk, November salary	100 00
Sam Hanks, ice, account, November	2 50
	$ 716 35
Commissioners' Salaries.	
Al. F. Schoch, per diem and expenses for November	$ 298 60
Isaac Taylor, per diem and expenses for November	305 70
John Lambert, per diem and expenses for November	260 00
Total	$ 1,580 65

These accounts have been duly authorized and approved by the Board.

(Signed) ISAAC TAYLOR,
President.

AL. F. SCHOCH,
Secretary."

ADJOURNMENT.

On motion of Mr. Wenter, seconded by Mr. Mallette, the Board then adjourned.

Joseph F. Haas
Clerk.

PROCEEDINGS

—OF THE—

BOARD OF TRUSTEES

—OF THE—

SANITARY DISTRICT OF CHICAGO.

DECEMBER 13, 1899.

OFFICIAL RECORD.

Published by authority of the Board o Trustees of the Sanitary District of Chicago.

REGULAR MEETING.

The four hundred and sixty-sixth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Wednesday, December 13, 1899, at 2 o'clock P. M.

On roll-call, Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—nine members, were present.

President Boldenweck then called the Board to order.

MINUTES.

The minutes of the annual meeting held December 5, and of the regular meeting held December 6, 1899, were approved as printed, on motion of Mr. Kelly, seconded by Mr. Braden.

APPOINTMENT OF COMMITTEES FOR 1899-1900.

The President presented, and the Clerk read, a message appointing the Committees of the Board for the years 1899-1900.

Mr. Mallette, seconded by Mr. Wenter, moved that the message be received, and that the list of committees as appointed be approved.

The motion prevailed unanimously, and it was so ordered.

The following is

THE MESSAGE:

"CHICAGO, December 13, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—With your concurrence I submit the following list of standing committees for the ensuing year:

Judiciary—Mr. Mallette, Chairman

and Messrs. Eckhart, Jones, Braden and Kelly.

Finance—Mr. Carter, Chairman, and Messrs. Eckhart, Wenter, Kelly and Jones.

Engineering—Mr. Smyth, Chairman, and Messrs. Mallette, Jones, Carter, Wenter, Eckhart, Braden, Kelly and the President.

Federal Relations—Mr. Wenter, Chairman, and Messrs. Eckhart, Jones, Carter and Smyth.

Labor—Mr. Braden, Chairman, and Messrs. Smyth, Jones, Wenter and Eckhart.

Health and Public Order—Mr. Kelly, Chairman, and Messrs. Jones, Mallette, Smyth and Carter.

Rules—The President, Chairman, and Messrs. Jones, Braden, Mallette and Kelly.

Respectfully submitted,

(Signed) WILLIAM BOLDENWECK,
President."

VOUCHERS.

The Clerk presented the following vouchers:

*CONSTRUCTION ACCOUNT.

Wm. Trinkaus (miscellaneous)	$ 88 17
Isham Randolph (miscellaneous)	60 84
M. W. Keegan (Sec. 8, water main)	90 00
Heldmaier & Neu (Sec. 12, bridge)	21 82
Geo. M. Huss (Sec. K, Belt Railway bridge)	1,095 87
Hayes Bros. et al. (Sec N, Kedzie Avenue)	4,999 05
The A., T. & S. F. Ry. Co. (Sec. O—P. H. bridge)	43 07
Chicago Junction Railway Company (Sec. O—P. H. bridge)	98 75
C. T. T. R. R. Co. (Sec. O—P. H. bridge)	99 07
Heggie Bros. (Sec. O, pumps)	113 40
Isham Randolph (Sec. O—P. H. bridge)	138 25
Rittenhouse & Embree Company (Sec. O, inlet)	136 80
Geo. M. Huss (Sec. O—P. H. bridge)	2,105 45
Humphrey & Sons (Sec. 12, concreting clay pockets)	21 92
Barrett Hardware Company (Sec. 12, concreting clay pockets)	41 73
Thos. F. Ryan (Sec. 12, concreting clay pockets)	46 13
Wilcox Bros. (Sec. 12, concreting clay pockets)	92 87
Alfred Wenberg (Sec. 12, concreting clay pockets)	48 00
Weaver Coal Company (Sec. 12, concreting clay pockets)	104 18
Garden City Sand Company (Sec. 12, concreting clay pockets)	92 77
Werden Buck (Sec. 12, concreting clay pockets)	166 60
Shepard Stone Company (Sec. 12, connecting clay pockets)	508 84
Griffiths & McDermott (Sec. 15, Bear Trap Dam)	88 10
Thos. F. Ryan (Sec. 15, Bear Trap Dam)	346 82
Advance Packing Company (Sec. 15, Bear Trap Dam)	533 20
Heldmaier & Neu (Sec. 17, crib)	826 16
Isham Randolph (Sec. 18, Jefferson Street bridge)	72 70
The J. G. Wagner Company (Sec. 18, Cass Street bridge)	497 00
Wilcox Bros. (Sec. 18, Jackson Street bridge)	596 44
The J. G. Wagner Company (Sec. 18, Jefferson Street bridge)	188 51
The J. G. Wagner Company (Sec. 18, Jefferson Street bridge)	5,711 56
Pennsylvania Steel Company (C. T. T. bridge)	6,571 35
Chicago Bridge and Iron Company (Taylor Street bridge)	3,142 43
Chicago Bridge and Iron Company (Van Buren Street bridge)	2,350 45
Gahan & Byrne (Sec. 18, sluice gate)	71 30
Gahan & Byrne (Sec. 18, Jefferson Street)	22 94
Gahan & Byrne (Sec. F)	3,637 94
Gahan & Byrne (Sec. G)	2,314 48
Gahan & Byrne (Sec. H)	7,712 40

Heldmaier & Neu (Sec. 17, tow-path bridge)	$ 323 84	
J. H. Winterburn Plumbing Company (Alton freight house)	491 00	
J. H. Winterburn Plumbing Company (Alton freight house)	327 50	
Meacham & Wright (Sec. 12, concreting clay pockets)	131 40	
Joseph F. Haas, Clerk (Sec. 12, concreting clay pockets)	2,122 32	
Peter Petersen (Sec. O, inlet)	422 84	
Henion & Hubbell (pumps)	192 00	
Francis Beidler & Co. (Sec. 8, lumber)	198 75	
Isham Randolph (concreting clay pockets)	378 43	
Isham Randolph (sundries)	349 46	
C., R. I. & P. Ry. Co. (Sec. 18, bridge)	1,056 49	
The A., T. & S. F. Ry. Co. (Sec. 8, bridge)	2,116 96	
C. T. T. R. R. Co. (Chicago River bridge)	1,347 65	
C. T. T. R. R. Co. (Sec. E, bridge)	102 71	
C. T. T. R. R. Co. (Sec. O, bridge)	100 00	
Humphrey & Sons (Sec. 18, Jackson Street bridge)	904 63	
Strong, Bush & Handwerk (Sec. 18, Jackson Street bridge)	75 66	
		$54,528 50

ENGINEERING DEPARTMENT.

The Waukesha Water Company (water)	$ 16 88	
John F. Higgins (printing)	8 50	
P. F. Pettibone & Co. (stationery)	48 24	
The Gunthorp-Warren Printing Company (stationery)	38 50	
Pearson Bros. (blue prints)	10 98	
Frederick Post Company (blue prints)	3 43	
A. H. Abbott & Co. (drafting supplies)	10 98	
Keuffel & Esser Company (drafting supplies)	24 22	
Eugene Dietzgen Co. (drafting supplies)	14 46	
Hans Isak (guage reading)	10 00	
Henry Henschen (sundries)	12 20	
Wygant & Ayres (rent, Corwith)	25 00	
J. H. Alexander (rent, Lockport)	17 00	
Strong, Bush & Handwerk (repairs)	15 05	
Edmund Kandler & Co. (repairs)	6 25	
R. Seelig (repairs)	8 25	
The J. G. Wagner Company (repairs)	23 46	
W. M. Hughes expense)	31 45	
J. S. Hull (expense)	20 83	
Wm. Trinkaus (expense)	32 44	
Western Camera Manufacturing Company (photo supplies)	28 20	
Bowers & Reid (rubber boots, etc.)	47 00	
W. H. Salisbury & Co. (rubber boots, etc.)	17 56	
*Thayer & Jackson Stationery Company (stationery)	50 32	
*Burke & James (photo supplies)	60 08	
*Soper Lumber Company (pine stakes)	150 00	
*H. B. Alexander (expense)	95 07	
*W. T. Keating (expense)	58 98	
*Isham Randolph (expense)	174 76	
*G. M. Wisner (expense)	140 10	
*The Canal Commissioners (inspectors)	552 00	
*J. R. Davis test pits)	415 00	
		$ 2,167 19

GENERAL ACCOUNT.

Adolph Gehrmann (streams examination)	$ 10 20	
E. H. Sargent & Co. (streams examination)	7 25	
Wm. J. Bohm (streams examination)	9 00	
Thos. S. Bell (expense)	8 02	

Adams Express Company (streams examination)	$ 34 72	
Isham Randolph (expense)	39 00	
*United States Express Company (streams examination)	148 58	
*Edwin O. Jordan (streams examination)	414 64	
*Arthur W. Palmer (streams examination)	350 00	
		$ 1,021 41

MAINTENANCE ACCOUNT.

Werden Buck (clay)	$ 3 00	
Heggie Bros. (repairs)	4 10	
H. B. Alexander (expense)	47 98	
Mrs. Thomas O'Brien (teaming)	14 00	
*Thos. F. Ryan (roofing)	154 00	
*Weaver Coal Company (coal)	283 69	
*Weaver Coal Company (coal)	299 17	
*Strong, Bush & Handwerk (hardware)	52 11	
		$ 858 00
Grand total		$58,575 10

*To be paid by warrants, with interest coupons attached, drawn against the Tax Levy for 1899.

Mr. Carter, seconded by Mr. Wenter, moved that the vouchers, as read and shown above, be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Jones, Kelly, Mallette and Wenter—seven. Nays—none. Excused and not voting—Mr. Eckhart—one.

Upon this result the President declared the motion carried.

REQUISITION.

The Clerk presented the following requisition:

No. 966, Police Department (1 bbl. kerosene) ..... $ 6 00

Mr. Kelly, seconded by Mr. Eckhart, moved that Requisition No. 966, as read and shown above, be allowed.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly and Wenter—seven. Nays—none.

Upon this result the President declared the motion carried.

REPORT IN REFERENCE TO CLAIMS FOR EXTRA COMPENSATION ON CONTRACTS FOR SECTIONS F, G AND H.

The Clerk presented and read a report from the Chief Engineer, being his findings and recommendations in relation to the several claims for extra compensation heretofore filed by Messrs. Gahan & Byrne, contractors for Sections F, G and H, the report reviewing said claims in detail, disallowing claims amounting in the aggregate to $32,231.50, and allowing, or recommending for payment, claims amounting in the aggregate to $13,664.82.

Mr. Wenter, seconded by Mr. Braden, moved that the report be received and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly and Wenter—seven. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, December 9, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Messrs. Gahan & Byrne, contractors for Sections "F" "G" and "H" have filed with me certain claims for compensation in excess of the final estimates returned upon those sections. These I have considered carefully in conference with Mr. Thomas Gahan and Mr. Gallagher, superintendent for his firm; and with our own engineer, Mr. Keating. I submit herewith my findings and recommendations in relation to the several claims on each of the sections.

Section "F". "Item No. 1.—12,000

cubic yards of excavation of slides from slopes at bottom of Section "F" removed to stakes and grades furnished, at 29½ cents per cubic yard, $3,540.00."

To determine this claim I have had the cross-sections carefully platted, showing the theoretical excavation and the actual excavation, and I find that the actual yardage removed reaches 12,332 cubic yards in excess of the theoretical. This work was all done subject to the terms and conditions of the original contract awarded to Ricker, Lee & Co. and consummated November 23, 1892. Section 19 of Clause D of that contract (see page 900 of Proceedings) limits payment to the "true prism of the Main Channel" and on this limitation the final estimate was based. These contractors set up the fact that as successors to contractors who had taken out long stretches of the channel without dressing up their slopes that this expensive work of finishing devolved upon them and that the excess excavation was due to the conditions which they had to meet. This contention is a reasonable one, and I therefore recommend that the claim be allowed on the basis of the actual computations made by our engineers, viz.: 12,332 cubic yards at 29½ cents, $3,637.94.

"Item No. 2—27,838 cubic yards being amount of excavation on lower cut of has Section "F" on which no classification been allowed, at the same classification allowed on the balance (56,162 yards) of cut, viz.: 40 per cent, amounts to 11,135 cubic yards, at 90 cents per cubic yard, $10,021.50."

Having the fullest personal knowledge of the facts and and conditions relating to this item, I reject it as an improper and unjust claim.

Section "G". "Item No. 1—To overhaul of 134,000 cubic yards an average distance of 1,000 feet, excavated between Stations 368 and 354, Section G. This overhaul was necessary on account of not being able to use our regular method, caused by Santa Fe tracks not being removed, $13,400.00."

"Item No. 2—To overhaul of 60,000 cubic yards an average distance of 400 feet, excavated between Stations 347 and 355 on Section H. This overhaul was necessitated by Santa Fe tracks not being removed, $2,4' 0.00."

These claims were presented in 1897 and were investigated and ruled upon by me at that time, when all the facts were fresh. My ruling is printed in the Proceedings for December 8, 1897, on page 4890, claims 1 and 2. For the reasons then stated I reaffirm my ruling and reject these claims.

"Item No. 3. To increased cost of removing 944 cubic yards in dam at Station 362, Section G, at 27 cents, $254.88."

This item has been carefully considered and is allowed upon its merits, the 27 cents asked added to 28 cents, the contract price for the section, makes 55 cents per cubic yard, which is the price allowed other contractors on emergency work I therefore include this item of $254 88 in voucher rendered.

Section "H". "Item No. 1—To cost of installing and operating an extra pumping plant on Section H, account of not being able to excavate under Santa Fe, $3,550.00."

"Item No. 2—To labor required filling and leveling up berm and draining the Nickerson ditch where it crosses Section H, $460.00."

These claims were presented in 1897 and were investigated and ruled upon by me at that time, when all the facts were fresh. My ruling is printed in the Proceedings of December 8, 1897, on page 4890, claims 5 and 6. For the reasons then stated I reaffirm my ruling and reject these claims.

"Item No. 3—To increased cost of removing 11,000 cubic yards in dam from Station 348, east on Section H, at 26 cents, $2,860.00."

This item covers not alone removing the dam but the excavation of the original material lying east of Station 348 and strictly comes under the contract price of 29 cents. These contractors urge in support of the claim that they prosecuted the work both night and day without asking for extra compensation, believing that they would receive equal consideration with other contractors who held their work back until extra compensation was allowed them. This argument appeals quite strongly to my ideas of equity, and I therefore recommend that you recognize it and make the allowance asked for, 26 cents in addition to the contract price of 29 cents, making 55 cents per cubic yard. The increased cost to the District would be 11,000 cubic yards at 26 cents, $2,860.00.

We now come to three items which apply to both sections. The first of these:

"Item A—To judgment rendered in

the United States Court in favor of Hoover & Mason, caused by the delay in removing the Santa Fe tracks, $2,400.00," cannot be considered until its final adjustment by the courts, as I am advised by our Attorney that the attorneys for the contractors will carry the case up."

"Item B—To interest on cost of excavating plant, consisting of steam shovel and steel incline on Section H, for twenty months (September 20, 1897, to May 20, 1899), it being idle on account of Santa Fe tracks not being removed, $15,000.00 at 6 per cent—$1,500.00."

The justice of the principle involved in this claim was recognized by me in 1897 (see page 4390 of Proceedings), in my ruling on a similar claim. This claim of $1,500.00 is allowed and will be covered by voucher.

"Item C—To difference in cost of labor and materials during the years 1899 and 1897, increase of 15 per cent, equal to $0.033 per yard on 164,000 cubic yards of excavation delayed by Santa Fe tracks not being removed, $5,412.00."

This claim is based upon equity, and I therefore allow it. The rate of advance per cubic yard of 3 3-10 cents as indicated by the increased cost of labor and material in 1899 over previous years is fairly estimated.

On basis of yardage removed from each section, the pro rata of the last mentioned claims to each section would be:

Section H, pro rata of interest account	$ 1,053 04	
Section H, increased cost of excavation, 115,132 cubic yards at 3 3-10 cents	3,799 36	$ 4,852 40
Section G, pro rata of interest account	$ 446 96	
Section G, increased cost of excavating 48,868 cubic yards at 3 3 10 cents	1,612 64	$ 2,059 60

SYNOPSIS OF RULINGS.

Section F payment recommended on 12,332 cubic yards excavation outside of regular prism of channel at 29½ cents		$ 3,637 94
Classification refused on 11,135 cubic yards at 90 cents	$10,021 50	
Section G, Claim No. 1 rejected	13,400 00	
Section G, Claim No. 2 rejected	2,400 00	
Section G, Claim No. 3, removing dam, allowed		254 88
Pro rata of interest account allowed		446 96
Increased cost of excavating		1,612 64
Section H, Claim No. 1 rejected	3,550 00	
Section H, Claim No. 2 rejected	460 00	
Section H, Claim No. 3 recommended for payment		2,860 00
Pro rata of interest allowed		1,053 04
Increased cost of excavating allowed		3,799 36
Court claim in litigation not considered	2,400 00	
	$32,231 50	$13,664 82

Respectfully submitted,

(Signed) ISHAM RANDOLPH,

Chief Engineer."

MONTHLY REPORT FROM ENGINEERING DEPARTMENT.

The Clerk presented a report from the Engineering Department for the month of October, 1899, which, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT.

"CHICAGO, Nov. 29, 1899

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I herewith transmit the report of the Engineering Department for the month of October, 1899, giving the detailed operations of the several divisions of same.

The value of the construction work done was $301,783.70, divided as follows: Main Channel, $186,881.56; bridges, $113,432.14; general, $1,420.00. The engineering expenses were $15,061.09, divided as follows: Salaries, $12,263.72; supplies, etc., $2,797.37.

DIVISION OF CONSTRUCTION.

The weather during the month was favorable to good progress by the contractors. The temperature varied between 34 and 78 degrees Fahrenheit.

Chicago River—The contractors for the substructure of the By-pass have completed about 91 per cent of their work. The average number of men employed per day, during the month, was 153, and the amount of work accomplished was as follows: Excavation, 6,500 cubic yards; concrete, 1,200 cubic yards; timber used, 260,000 feet B. M. Considerable difficulty was experienced on this work on account of the Metropolitan West Side Elevated Railroad Company's water tunnel. A temporary two-foot feed pipe was run across the By-pass and used to supply the tunnel with water temporarily. The contractors removed the timber and bracing from the Adams Street section of the work.

The contractors for the superstructure of the By-pass employed an average of 48 men per day during the month; 22 girders were put in place and the necessary painting was done; 10 concrete arches were put in place, for which 563 cubic yards of concrete were used. The Adams Street section of this work was finished.

The contractors for the dredging of the river removed 46,300 cubic yards of material, which was deposited in the Lake Front.

On the contract for the Van Buren Street approach span, all false work is in, the street is open for traffic and some excavation is done.

At the Taylor Street highway bridge, the west main abutment is finished and the east main abutment is ready for the cut stone coping.

At the C. T. T. R. R. Co.'s bridge, near Taylor Street, one-half of the coffer dam is in at the west abutment, and 60 foundation piles are driven. At the east abutment, a greater part of the excavation is completed.

Section "O"—The excavation of the Main Channel at the west end of the section was continued with scraper force during 25 days of the month, and removed 7,923 cubic yards of glacial drift.

On the 7th, a movable derrick was brought to the west bank of the collateral channel by the Green Dredging Company, and on the 21st a dredge arrived, but did not begin operations until the 28th, when it commenced loading scows, and continued working day shifts to the end of the month.

Owing to excavations under the temporary trestles at the Pan Handle crossing, the redriving of certain bents of piling was found necessary. This work was begun on the 27th and continued to the end of the month.

Work on the permanent eight-track bridge was continued throughout the month, weather permitting, in night and day shifts; 6,886 cubic yards of material were excavated from the Main Channel under the bridge, and 494 lineal feet of old piling were removed. The construction of the new dam across the Main Channel east of the bridge pit was continued all the month, and nearly completed. Stone laying on the north abutment was stopped on the 7th for lack of stone, was continued on the 22d, and virtually completed on the 26th. The back filling of this abutment was nearly completed at the end of the month. At the south abutment, two derricks were erected over the pit, and excavation completed. Concreting for foundation was begun on the 20th, and continued with some interruptions to the end of the month, at which time the foundation was nearly completed. The mixing of concrete was done by two patent mixers, placed on the ground during the month. Excavation for both center piers down to solid rock was continued night and day all month, and almost completed. Some concrete was placed for south pier on the 25th. Quantities vouchered for the month were as follows: Portland cement concrete, 558 cubic yards; masonry, 493 cubic yards. The storing of cement for this bridge was continued at the cement warehouse near Robey Street.

A large amount of heavy timber from the By-pass was stored on the ground near the cement warehouse, part of which was shipped for use in the construction of the Belt Railway Company's temporary trestle on Section "K. All the machinery from the abandoned pumping plants on Sections "O" and "M" was stored in this warehouse.

Section "N"—The shovel and incline plant at the east end of the section worked 19½ day and 18½ night shifts, six days in the beginning of the month having been lost on account of broken boom; 18,050 cubic yards of material were removed. Excavation under the old Kedzie Avenue right of way was continued with wagon force for 23 days. The shovel and incline plant west of Kedzie avenue worked 17 day and 14 night shifts, removing 12,322 cubic yards of material.

A large force of men continued at work the larger part of the month on

the new location of the C., M. & N. Ry. tracks between Kedzie Avenue and the Santa Fe Railway Company's Twenty-sixth Street Line tracks. P. Petersen also did some work at this point loading cars of rails taken up from the abandoned tracks.

The A., T. & S. F. Ry. Co. continued doing some work on its Twenty-sixth Street Line.

Section "M"—Pumping on this section was stopped on the 18th, the pumps having reduced the water to the lowest point possible. The boilers were returned to the owner and, as stated under Section "O," the machinery was stored in the cement warehouse.

Sections "L" and "K"—The excavation of the Main Channel under the old Belt roadbed was continued by scraper force for 24 days and removed 2,399 cubic yards of material. Some lumber and piles for the Belt Railway Company's new temporary trestles were unloaded.

The work of excavating for the substructure of the Belt Railway Company's bridge over the Main Channel was continued with a small force throughout the month, removing 1,550 cubic yards of material from the abutment pits. A quantity of building material was unloaded on the ground.

Sections "K," "I" and "H"—As a result of lowering the cut through the bank at the west end of Section "H" the water on these three sections had been lowered to about three feet above grade at the end of the month.

Sections "H" and "G"—The scraper teams continued work as last reported, the latter part of the month having been devoted to the removal of the dam across the Main Channel on Section "G" near Station 362. The shovel and incline plant worked 19½ day and 19 night shifts, some time having been lost on account of water from the upper sections running through the pit; 19,802 cubic yards were removed from Section "H." The removal of the Mason & Hoover conveyor from Section "H" was begun on the 23d.

Section "E"—The masonry work on the C. T. T. R. R. Co's Bridge over the Desplaines River was finished on the 20th. Excavation under the new span was still in progress. The quantities vouchered during the month were as follows: Excavation, 594 cubic yards; sheet piling, 678 feet B. M.; Portland cement concrete, 19.17 cubic yards; masonry, 158.27 cubic yards; old masonry removed, 66.78 cubic yards. The old spans for this bridge were not lowered to place at the end of the month.

Section 8—The plant used in the Main Channel work consisted of one revolving and one guy derrick, two steam hoists and three steam drills. An average of 70 laborers per day were employed. The material excavated was spoiled on either side of the Main Channel and a portion was placed in embankment south of the Santa Fe Railway Bridge. One-yard dump cars hauled by team were used in placing the material. Quantities vouchered on this account were as follows: Embankment, 2,000 cubic yards; excavation, solid rock, 4,900 cubic yards.

The A. T. & S. F. Ry. Co. had a gang of laborers, averaging 63 per day, raising its depot and house track, and improving its railroad yard, using sand in connection with the work.

On the Stephens Street subway work, a force, averaging 49 laborers per day, was engaged in excavation, concrete and collaterial work. Excavation for the abutments for the east track was completed on the 20th and the placing of concrete was finished on the 24th. Other work consisted of grading approaches to the highway bridge across the Main Channel, of excavation of the sewer ditch and of excavation for the approach to the subway from the east. This latter work was stopped by injunction on the 13th. The following quantities were vouchered on this account: Subway excavation, 2,300 cubic yards; grading road to Santa Fe station, 400 cubic yards: Portland cement concrete, 160 cubic yards; excavation west approach bridge, 350 cubic yards; macadam road surfacing, 100 cubic yards.

Sections 12 and 13—A force of about 60 men have been engaged during the month excavating and concreting clay pockets on these sections. Four steam derricks were in use. All excavation had been completed north of the Romeo Bridge at the end of the month, and two derricks were moved into position south of the bridge. About 1,250 cubic yards of concrete had been placed up to the 25th.

A final voucher was rendered on the 21st to the contractors for the substructure of the Romeo Highway Bridge on Section 12, on which is shown an addition to previous estimates of 324 cubic yards of solid rock excavation.

Section 14—One pump only was run

continuously during the month, with the exception of the 28th and 30th, when the height of the water warranted the putting of both pumps into service. The elevation of water at the end of the month was —29.4 C. C. D., being four tenths above grade.

Section 16—The work of excavating the Tail Race was carried on during the month without interruption in the vicinity of the Regulating Works. An average daily force of 106 laborers and 14 teams was employed. Two steam drills and one channeler were run in double shifts throughout the month. The gap in the embankment left open for the flow of the Desplaines River across the section was closed; 12,000 cubic yards of material were vouchered on this account.

The grading of the Wire Mills Road was carried on during the greater part of the month, and 525 cubic yards of broken stone were vouchered on this account. A voucher was also issued for work done account of Wire Mills Road as follows: Embankment, 3,600 cubic yards; raising bridge one foot high; extra work, stopping leaks through embankment and revetment of slopes with rock.

Section 17—Work was continued on this section with but little interruption, 25 days of work having been done for the month. An average of 380 men per day was employed, 100 of which were employed on the Tail Race, 175 in the new river channel and the balance in the Upper Basin and tow path, and on miscellaneous work as needed. The machinery used in the Tail Race work consisted of one traveling derrick, one horse derrick, one steam hoist, four drills, three channelers and one locomotive. In the new river channel the plant consisted of one steam shovel, one traveling derrick, two locomotives, seven drills and two pumps. In the Upper Basin the plant consisted of two dredges, one mud pump and one derrick. The quantities vouchered for this section are as follows: Excavation, solid rock, 14,000 cubic yards; excavation, earth, 20,600 cubic yards; Tail Race excavation, 7,800 cubic yards; rip-rapping, 1,900 cubic yards; completion of cribbing, 60,000 feet B. M.

Section 18—The work done at the dam and conduit on this section was as follows: The building of coffer dams at Dam No. 1 was carried on at intervals during the month. The removal of the condemned portion of Dam No. 1 began on the 4th and continued throughout the month with few intervals. Scraping of joints and cementing breaks in tunnel was continued. Concrete was placed in bottom of tunnel on the 25th, but was unable to continue on account of water. Average number of men employed on Dam No. 1, six; on conduit, nine. Work on the Tail Race was continued throughout the month with the following plant: Two derricks, one hoist engine for cars, one channeler and two steam drills. One new channeler was added to the plant on the 13th. Night work was carried on in 17 shifts. Average number of men, 47. Excavating for foundation for retaining wall was continued from the 2nd to the 21st. One boiler and one steam pump were used. Concrete was placed from the 2nd to the end of the month, and 1,173 feet of finished wall were built. Average number of men employed on excavation, 10; on concrete, 66. On the Main Channel the entire car plant was confined to the work north and south of Cass Street during the month, with the exception of a small car gang excavating north of Jefferson Street from the 16th to the 24th. The plant used north of Cass Street consisted of one derrick, one boiler and two steam drills. A new boiler was added to this plant on the 10th. Average number of men employed, 132. Some of the material taken from the Main Channel and west abutments of the Jefferson Street Bridge was placed in the levee south of McDonough Street and north of the C., R. I. & P. R. R. Some of the material taken from the Main Channel and old Dam No. 1 was placed in the Illinois and Michigan Canal rip-rap. Rip-rapping of foundation of retaining wall was carried on at intervals during the month.

In reference to bridges on this section, contractors are erecting plant and laying track in Main Channel, from Jefferson Street Bridge south to a distance of 700 feet. The actual work began on the 20th with plant of 1 derrick and 12 cars. Laying of gas and water pipe over Jefferson Street temporary bridge was commenced on the 7th and connections made on the 12th.

Concrete in the pier of the C., R. I. & P. R. R. Co.'s Bridge was finished on the 3d and concrete was placed in the abutment nine days out of the month.

The contractors for this section began excavation for the west abutment of the Jefferson Street Bridge by force account on the 25th and continued throughout the month.

Excavation for the new pier at the

Cass Street Bridge was continued from the 20th to the 29th, and concrete was placed on the 31st.

The rain of the 26th and 27th caused the shutting down of the entire work on this section. The average number of men employed on the entire section during the month was 308 and the average number of teams; 12. About 75 per cent of the entire work of this entire section was completed.

DIVISION OF DRAFTING AND DESIGNING.

The regular platting was continued on the contour maps between Lockport and Willow Springs; the 50 feet scale maps of the Chicago River and the atlas of the right of way. Work was also continued on the maps to be used in constructing the relief map of the Main Channel. The construction progress chart was completed.

The following drawings were made: Map showing land occupied by Mr. King near the C. M. & N. R. R. crossing and a plan showing railing to be built for the bridge approaches to Stephens Street, Lemont.

In the Bridge Department office, considerable time was given to the plans of the Cass and Jefferson Street Bridges at Joliet and to the Van Buren Street approach span. Some time was also given to the plans of the following bridges. Eight track; C. & W. I. Belt; Tow-path and the C. T. T., Desplaines River.

The work of this branch of the office force, exclusive of the Bridge and Drafting Departments, was a continuation of its previous work.

DIVISION OF RECORDS.

The work of this Division has been carried on in the usual manner.

I estimate the expenses of this Department for the month of November will be $400,000.00.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,

Chief Engineer."

Tabulated Statements of Expenditures, Values and Quantities, Engineering Department.

SANITARY DISTRICT OF CHICAGO—ENGINEERING DEPARTMENT.

CLASSIFIED STATEMENT OF EXPENDITURES DURING THE MONTH OF OCTOBER, 1899.

Classification.	Engineering Expenses.			Construction.
	Salaries.	Supplies, Etc.	Total.	
Borings and Test Pits	.....	$ 140 00	$ 140 00	.....
Maps and Plans for General Use	$ 260 13	27 72	287 85	.....
Chicago River Survey	131 60	.....	131 60	.....
Chicago River Improvement	2,289 16	847 14	3,136 30	$46,865 60
Right of Way	236 35	7 14	243 49	.....
Flood Measurements	13 00	10 00	23 00	.....
Disposal Works and Joliet Project	2,725 61	775 83	3,501 44	93,948 25
Regular Construction—Main Channel and River Diversion	1,485 11	139 39	1,624 50	43,770 35
Wire Mills Permanent Bridge and Roadway, Sec. 16	.....	.....	.....	1,123 23
Lockport Temporary Roadway, Sec. 16	.....	.....	.....	387 11
Romeo Road Permanent Bridge, Main Channel, Sec. 12	.....	.....	.....	1,999 63
Lemont Road Permanent Bridge, Main Channel, Sec. 8	5 00	47	5 47	.....
A., T. & S. Fe Ry. Co.'s Per. Bridge, Main Channel, and track deviation and Stephen St. subway, Sec. 8	449 08	10 33	459 41	9,740 13
C. T. T. R. R. Co.'s Temporary Bridge, Desplaines River, Sec. E	40 00	6 00	46 00	102 36
C. T. T. R. R. Co.'s Permanent Bridge, Desplaines River, Sec. E	170 00	14 75	184 75	1,618 26
Belt Railway of Chicago's Temporary Bridge, Main Channel, Sec. K	120 00	157 61	277 61	546 89
Belt Railway of Chicago's Permanent Bridge, Main Channel, Sec. K	280 00	10 20	290 20	610 31
Pumping Plant, Sec. M	130 00	9 50	139 50	507 37
A., T. & S. Fe Ry. Co.'s Temporary Bridge, Main Channel, Sec. N	.....	.....	.....	75 67
A., T. & S. Fe Ry. Co.'s Permanent Bridge, Main Channel and track deviation, Sec. N	20 00	.....	20 00	57 55
C., M. & N. R. R. Co.'s Permanent Bridges, M. C. and Kedzie Avenue and track deviation, Sec. N	50 00	24	50 24	3,177 99
Panhandle Temporary Bridges, Main Channel, Sec. O	250 00	.....	250 00	11,230 35

Panhandle Permanent Bridge, Main Channel, Sec. O	1,290 80	23 07	1,313 87	46,518 16
Pumping Plant, Sec. O	20 00	.....	20 00	577 51
Taylor Street Bridge, Chicago River	387 50	10 50	398 00	4,058 55
C. T. T. R. R. Co.'s Bridge, Chicago River	375 68	10 50	386 18	14,366 35
Van Buren Street Approach Span, Chicago River	.....	1 47	1 47	.....
Bear Trap Dam Permanent Bridge, Sec. 15	30 00	.....	30 00	.....
Tow Path Permanent Bridge, Sec. 17	110 00	.....	110 00	187 79
Jefferson Street Temporary Bridge, Sec. 18	230 00	4 95	234 95	2,313 08
Jefferson Street Permanent Bridge, Sec. 18	120 00	.....	120 00	4,390 31
Cass Street Permanent Bridge, Sec. 18	55 00	.....	55 00	.....
C., R. I. & P. R. R. Co.'s Temporary Bridge, Sec. 18	.....	.....	.....	19 42
C., R. I. & P. R. R. Co.'s Permanent Bridge, Sec. 18	180 00	.....	180 00	4,690 00
Moving and Repairing Bridges	20 00	.....	20 00	75 00
Mortar, Sand and Cement Tests	689 75	10 04	699 79	.....
Photographs of Works	150 00	27 68	177 68	.....
Relief Map for Paris Exposition	.....	552 84	552 84	.....
Totals	$12,263 72	$2,797 37	$15,061 09	$ 291,957 22

VALUES— STATEMENT SHOWING CONDITION OF

Designation.	Amount earned during Oct., 1899.				Amount earned to date.			
	Main Channel.	Bridges.	General.	Total.	Main Channel.	River Diversion.	Bridges.	General.
Chicago River Imp'ment	$51,284 56			$51,284 56	$ 500,153 95			
O	9,755 36	$11,242 70		20,998 06	396,340 71		$ 107,775 52	
N	12,480 74	75 67		12,506 41	248,262 04		3,600 69	
M.	432 37			432 37	161,471 81			
L					217,287 06			
K	1,319 45	546 89		1,866 34	303,130 57		8,195 02	
I.					289,846 00			
H	5,742 58			5,742 58	316,658 63			
G					398,538 40			
F					341,404 40	$ 75,627 78		
E		102 86		102 86	753,425 37	29,091 91	15,775 70	$ 260 00
D					592,089 29	2,880 54		
C.					443,342 59	40,135 18		781 00
B					438,986 42	59,451 34		150 00
A					801,584 08	115,741 78		
1.					1,210,660 37	143,908 29	1,912 00	30 00
2.					877,695 00	63,190 86		90 00
3.					840,952 98	338 42		
4.					975,248 98	83,304 43		85 00
5.					749,207 28	6,653 64		
6.					689,104 96	55,911 37		
7.					722,544 74	66,193 19		8,758 00
8.	6,174 54			6,174 54	898,991 80	89,663 90	19,853 89	2,580 00
9.					794,338 28	28,573 72	1,012 30	
10.					921,454 79	78,729 58		8,262 00
11.					797,717 50	43,854 42		
12.	8,592 20			8,592 20	849,768 91	21,768 52	1,086 87	
13.					819,388 19			
14					931,457 10			
15.					551,915 85	117 61		
16.	5,142 11			5,142 11	70,438 77		1,500 00	
17.	29,510 82			29,510 82	352,023 00			
18.	56,052 13	2,343 66		58,395 79	283,761 96		14,749 19	
Disposal Wks. at Lockp't	444 70			444 70	263,010 37			
Repairing I. & M. Canal.								18,038 00
Van Buren St. Approach Span, Chicago River...							4,050 00	
Taylor St. Bridge, Chicago River		4,638 34		4,638 34			29,421 73	
C. T. T. R. R. Co.'s Br. Chicago River		14,877 58		14,877 58			79,884 26	
S. W. Blvd. Bridge, M. C., Sec. O							149,962 42	
Pan Handle Bridge, M. C., Sec. O		50,595 54		50,595 54			214,136 43	
C.,M. & N. R. R. Co.'s Br., M. C., Sec. N		3,177 99		3,177 99			170,980 74	
C.,M. & N. R. R. Co.'s Br., Kedzie Av., Sec. N							14,515 47	
Kedzie Av. Bridge, M. C., Sec. N							43,118 58	
A., T. & S. F. Ry. Co.'s Br., M. C., Sec. N		57 55		57 55			80,505 93	
Belt Ry. of Chicago Br., M. C., Sec. K		697 50		697 50			1,946 50	
A., T. & S. F. Ry. Co.'s Br., M. C., Sec. G							114,305 72	
A., T. & S. F. Ry. Co.'s Br., D. R., Sec. F							19,210 73	
Lyons-Summit Road Br., D. R., Sec. E							13,220 47	
Lyons-Summit Road Br., M. C., Sec. F							41,198 18	
C. T. T. R. R. Co.'s Br., M. C., Sec. E							50,662 73	
C. T. T. R. R. Co.'s Br., D. R., Sec. E		1,845 65		1,845 65			11,985 20	
Willow Spgs. Highway Br., M. C., Sec. 1							22,968 52	
A., T. & S. F. Ry. Co.'s Bridge, M. C. and Stephen St. Subway, Sec. 8		10,479 35		10,479 35			194,477 21	
A., T. & S. F. Ry. Co.'s Br., D. R., Sec. 8							23,275 07	
Lemont Highway Br., M. C., Sec. 8							21,227 39	

CONSTRUCTION CONTRACTS, NOVEMBER 1, 1899.

Total.	Amount Paid to Date.	REMAINING TO BE EARNED.			REMAINING TO BE PAID ON VOUCHERS.		
		Main Channel.	Bridges.	Total.	Retained Percentages.	Unpaid Vouchers.	Total.
$ 500,153 95	$ 436,141 39	$ 224,533 92	.....	$ 224,533 92	$ 35,515 86	$ 28,496 70	$ 64,012 56
504,116 33	490,089 01	73,286 54	$ 14,232 19	87,518 73	9,649 69	4,377 53	14,027 22
251,862 73	235,754 77	18,592 80	.....	18,592 80	10,245 99	5,861 97	16,107 96
161,471 81	161,033 98	.....	.....	.....	.....	437 83	437 83
217,287 06	217,287 06	.....	.....	.....	.....	.....	.....
311,325 59	308,514 70	7,794 05	7,553 38	15,347 43	2,264 00	546 89	2,810 89
289,846 00	289,846 00	.....	.....	.....	.....	.....	.....
316,656 63	314,074 15	9,607 03	.....	9,607 03	.....	2,584 48	2,584 48
398,638 40	398,638 40	1,811 04	.....	1,811 04	.....	.....	.....
417,032 13	375,082 00	.....	.....	.....	34,103 38	7,846 75	41,950 13
798,552 98	693,616 86	29 58	98 84	128 42	97,406 83	7,539 29	104,936 12
594,919 83	594,919 83	.....	.....	.....	.....	.....	.....
484,259 40	484,259 40	.....	.....	.....	.....	.....	.....
498,587 76	498,587 76	.....	.....	.....	.....	.....	.....
917,325 81	917,325 81	.....	.....	.....	.....	.....	.....
1,356,510 66	1,349,615 00	.....	.....	.....	6,179 83	715 83	6,895 66
940,975 86	940,975 86	.....	.....	.....	.....	.....	.....
841,291 35	841,291 35	1,310 00	.....	1,310 00	.....	.....	.....
1,058,638 66	1,058,638 66	450 00	.....	450 00	.....	.....	.....
755,860 92	755,860 92	.....	.....	.....	.....	.....	.....
745,016 33	745,016 33	.....	.....	.....	.....	.....	.....
797,495 93	797,495 93	.....	.....	.....	.....	.....	.....
1,011,109 65	1,003,650 49	5,625 00	.....	5,625 00	1,544 05	5,915 11	7,459 16
819,424 30	819,424 30	.....	.....	.....	.....	.....	.....
1,009,136 70	1,009,136 70	.....	.....	.....	.....	.....	.....
841,571 92	841,571 92	.....	.....	.....	.....	.....	.....
872,624 30	867,145 51	4,526 62	.....	4,526 62	.....	5,478 79	5,478 79
819,388 19	819,388 19	4,879 30	.....	4,879 30	.....	.....	.....
931,457 10	931,457 10	1,600 00	.....	1,600 00	.....	.....	.....
552,033 46	552,033 46	.....	.....	.....	.....	.....	.....
71,938 77	58,893 72	4,728 75	.....	4,728 75	8,562 94	4,482 11	13,045 05
352,023 00	315,587 55	101,799 10	.....	101,799 10	24,708 91	11,726 54	36,435 45
298,511 15	236,448 88	101,959 04	1,349 49	103,308 53	33,391 72	28,670 55	62,062 27
263,010 37	262,682 52	150 00	.....	150 00	.....	327 85	327 85
18,052 85	18,052 85	.....	.....	.....	.....	.....	.....
4,050 00	4,050 00	.....	20,192 10	20,192 10	.....	.....	.....
29,421 73	23,268 80	.....	51,618 39	51,618 39	2,094 38	4,058 55	6,152 93
79,884 26	75,230 38	.....	292,500 81	292,500 81	1,075 23	3,578 65	4,653 88
149,962 42	145,734 20	.....	.....	.....	4,228 22	.....	4,228 22
214,136 43	175,083 80	.....	348,862 37	348,862 37	10,807 88	28,244 75	39,052 63
170,980 74	170,980 74	.....	12,000 00	12,000 00	.....	.....	.....
14,515 47	14,515 47	.....	.....	.....	.....	.....	.....
43,118 58	43,118 58	.....	5,400 00	5,400 00	.....	.....	.....
80,505 93	80,448 38	.....	2,086 06	2,086 06	.....	57 55	57 55
1,946 50	1,092 88	.....	211,374 60	211,374 60	243 31	610 31	853 62
114,305 72	114,305 72	.....	.....	.....	.....	.....	.....
19,210 73	19,210 73	.....	.....	.....	.....	.....	.....
13,220 47	13,220 47	.....	.....	.....	.....	.....	.....
41,193 18	41,193 18	.....	.....	.....	.....	.....	.....
50,682 75	50,682 75	.....	.....	.....	.....	.....	.....
11,985 20	9,429 03	.....	5,122 05	5,122 05	937 91	1 618 20	2,556 17
22,968 52	22,968 52	.....	.....	.....	.....	.....	.....
124,477 21	82,725 14	.....	17,001 79	17,001 79	22,884 64	18,867 43	41,752 07
23,275 07	23,275 07	.....	.....	.....	.....	.....	.....
21,227 39	21,227 39	.....	.....	.....	.....	.....	.....

VALUES— STATEMENT SHOWING CONDITION OF

Designation.	Amount earned during Oct., 1899.				Amount earned to date.			
	Main Channel.	Bridges.	General.	Total.	Main Channel.	River Diversion.	Bridges.	General.
Lemont Highway Br., D. R., Sec. 8	.....	.....	.....	.....	.....	.....	$ 22,329 89	.....
Western Stone Co.'s Br., D. R., Sec. 10	.....	.....	.....	.....	.....	.....	15,983 63	.....
Romeo Highway Br., M. C., Sec. 12	.....	$ 354 09	.....	$ 354 09	.....	.....	30,085 23	.....
Lockport Highway Br., M. C., Sec. 16	.....	.....	.....	.....	.....	.....	16,943 08	.....
Wire Mills Rd. Br., M. C., Sec. 16	.....	1,831 98	.....	1,831 98	.....	.....	17,429 51	.....
E. J. & E. R. R. Co.'s Br., bet. Secs. 16 and 17	.....	.....	.....	.....	.....	.....	41,984 62	.....
Towpath Bridge, Sec. 17	.....	187 79	.....	187 79	.....	.....	187 79	.....
Cass St. Bridge, Sec. 18	.....	.....	.....	.....	.....	.....	.....	.....
Jefferson St. Bridge, Sec. 18	.....	5,017 50	.....	5,017 50	.....	.....	5,017 50	.....
C. R. I. & P. R.R. Bridge, Sec. 18	.....	5,360 00	.....	5,360 00	.....	.....	11,810 00	.....
Crib work at Joliet	.....	.....	$1,420 00	1,420 00	.....	.....	.....	$34,727 [illegible]
Totals	$186,881 56	$118,433 14	$1,420 00	$361,733 70	$ 19,802,752 10	$1,000,156 88	$1,568,300 73	$74,467 [illegible]

CONSTRUCTION CONTRACTS, NOVEMBER 1, 1899—*Continued*.

Total.	Amount Paid to Date.	REMAINING TO BE EARNED.			REMAINING TO BE PAID ON VOUCHERS.		
		Main Channel.	Bridges.	Total.	Retained Percentages.	Unpaid Vouchers.	Total.
$ 22,329 89	$ 22,329 89	.....	.....	.....	.....	.....	.....
15,983 63	15,983 63	.....	.....	.....	.....	.....	.....
30,085,23	28,196 69	.....	.....	.....	.....	$ 1,888 54	$ 1,888 54
16,943 08	16,748 16	.....	.....	.....	$ 194 92	.....	194 92
17,429 51	15,361 28	.....	.....	.....	324 84	1,743 39	2,068 23
41,984 62	41,984 62	.....	.....	.....	.....	.....	.....
187 79	.....	.....	$ 29,066 85	$ 29,066 85	.....	187 79	187 79
.....	.....	.....	38,265 75	38,265 75	.....	.....	.....
5,017 50	508 12	.....	40,609 75	40,609 75	627 19	3,887 19	4,514 38
11,810 00	7,043 75	.....	24,798 00	24,798 00	1,476 25	3,290 00	4,766 25
34,727 56	34,727 56	*$ 2,610 00	.....	* 2,610 00	.....	.....	.....
$22,445,676 89	$21,954,178 29	$565,292 77	$1,122,132 42	$1,687,425 19	$308,467 97	$183,030 63	$491,498 60

* General account.

QUANTITIES— STATEMENT SHOWING CONDITION OF CON

DESIGNATION.	AMOUNT DONE DURING OCTOBER, 1899.				TOTAL DONE TO		
	Main Channel.			Piles Lineal Feet.	*Main Channel.*		
	Glacial Drift. Cu. Yds	Solid Rock. Cu. Yds	Mas'y& Concr't Cu. Yds		Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds.	Retaining Wall. Cu. Yds.
Chicago River Improvement	52,800		1,763		976,000		
O	14,809				1,716,586		
N	30,372				1,018,718		
M					780,573		
L					1,102,980		
K	2,399				1,177,331		
I					1,159,384		
H	19,802				1,096,242		
G					1,395,258		
F					1,098,047	37,448	
E					1,907,362	212,669	
D					1,934,890	87,030	
C					1,881,545		
B					1,579,036	15,586	
A					2,560,648	13,312	
1					1,282,267	554,326	68,256
2					724,905	483,750	38,506
3					425,705	760,778	14,089
4					1,096,746	262,428	68,169
5					952,526	378,609	56,059.1
6					683,248	549,355	30,361.7
7					181,721	890,939	6,179.9
8		4,900			50,170	1,154,652.1	2,874.9
9					76,692	1,008,769	
10					31,743	1,141,890	
11					44,021	989,711	
12					44,030	998,709	9,286.94
13					33,810	1,033,665	10,838
14					380,165	1,022,796	23,567.8
15					35,324	647,039	44,811.2
16	4,000	8,000			28,583	147,067	
17	20,600	21,800			210,700	327,900	1,500
18	16,500	15,200	†4,650		103,350	91,300	6,300
Disposal Works at Lockport						10,111	
Van Buren Street App. Span, Chicago River							
Taylor Street Bridge, Chicago River			357	622	2,050		
C. T. T. R. R. Co.'s Bridge, Chicago River	2,000			1,246	6,800		
Southwest Boulevard Bridge, Main Channel, Sec. O					9,873.5		
Eight Track Bridge, Main Channel, Sec. O			1,051		11,000		
C., M. & N. R. R. Co.'s Bridge, Main Channel, Sec. N					17,849		
C., M. & N. R. R. Co.'s Bridge, Kedzie Avenue, Sec. N					2,869		
Kedzie Avenue Bridge, Main Channel, Sec. N					7,101		
A., T. & S. F. Ry. Co.'s Bridge, Main Channel, Sec. N					7,445		
Belt Railway Co. of Chicago's Bridge, Main Channel, Sec. K	1,550				2,050		
A., T. & S. F. Ry. Co.'s Bridge, Main Channel, Sec. G					85,258		
Lyons-Summit Road Bridge, Desplaines River, Sec. E							
Lyons-Summit Road Bridge, Main Channel, Sec. F					2,270		
C., T. T. R. R. Co.'s Bridge, Main Channel, Sec. E					4,748.1		
C., T. T. R. R. Co.'s Bridge, Desplaines River, Sec. E	*594		177.44				
Willow Springs Highway Bridge, Main Channel, Sec. 1					2,084		
A., T. & S. F. Ry. Co.'s Bridge, M. C. and Stephens St. subway, Sec. 8		2,650	160		98,315	5,130	
Lemont Highway Bridge, Main Channel, Sec. 8					2,006	202	
Romeo Road Bridge, Main Channel, Sec. 12		324			1,170	2,454	
Lockport Road Bridge, Section 16						526	

STRUCTION CONTRACTS NOVEMBER 1, 1899.

DATE.				ESTIMATED REMAINING TO BE DONE.				PERCENTAGE COMPLETED.				
River Diversion.		Piles. Lineal Feet.	Masonry and Concr't. Cu. Yds.	*Main Channel.*				Main Channel Excava'n	River Divers'n.	Ret. Wall	Masonry and Concr't	Piles.
Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds.			Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds	Piles Lin. Ft.	Mas'y & Concr't Cu. Yds					
.....	.....	73,300	8,183	60,600	.....	15,324	2,295	94.2	.....	....	.....	82.7
.....	.....	.....	.....	151,299	.....	.....	.....	91.9	.....	....	.....	.....
.....	.....	.....	.....	67,772	.....	.....	.....	93.8	.....	....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	....	.....	.....
.....	.....	.....	.....	14,171	.....	.....	.....	98.8	.....	....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	....	.....	.....
.....	.....	.....	.....	19,507	.....	.....	.....	98.2	.....	....	.....	.....
.....	.....	.....	.....	5,524	.....	.....	.....	99.6	.....	....	.....	.....
179,447	.....	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
95,718	.....	.....	.....	94	6	.....	.....	99.9	100	....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	....	.....	.....
170,788	.....	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
212,486	.....	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
359,353	.....	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
174,655	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
119,234	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
.....	.....	.....	.....	.....	140	.....	‡200	99.9	.....	98.6	.....	.....
106,808	17,857	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
12,256	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
118,647	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
97,917	43,102	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
57,902	99,399	.....	.....	.....	5,000	.....	.....	99.6	100	100	.....	.....
40,768	16,873	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
30,313	58,276	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
12,699	15,677	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
11,739	7,475	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	....	.....	.....
.....	.....	.....	.....	.....	.....	.....	‡200	100	.....	99.1	.....	.....
619	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
.....	.....	.....	.....	.....	6,950	.....	.....	96.2	.....	....	.....	.....
.....	.....	.....	.....	76,770	56,760	.....	‡3,155	80	.....	32.2	.....	.....
.....	.....	.....	3,903	35,000	38,800	.....	§1,000	72.5	.....	96.9	83.3	.....
.....	.....	.....	11,454.1	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	.....	.....	3,951	.....	2,200	784	00	.....	....	00	00
.....	.....	4,285	657	1,200	.....	8,655	331	63	.....	....	66 5	33.1
.....	.....	1,246	.....	10,300	.....	30,060	8,800	39.8	.....	....	00	040
.....	.....	10,813	4,421.94	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	.....	2,266	4,200	.....	29,600	12,094	76.3	.....	....	15.7	00
.....	.....	5,948	4,236.77	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	.....	595.69	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	.....	2,886.84	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	4,544	2,489.36	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	.....	.....	6,050	.....	7,007	3,795	25.3	.....	....	00	00
.....	.....	5,748	2,929.03	.....	.....	.....	.....	100	.....	....	100	100
5,924	.....	.....	793.3	.....	.....	.....	.....	.....	100	....	100	.....
.....	.....	1,501	2,037.2	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	1,166.5	2,162.79	.....	.....	.....	.....	100	.....	....	100	100
2,956	.....	.....	658.44	433	.....	.....	.....	.....	100	....	100	.....
.....	.....	400	598.6	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	.....	1,260.07	16,000	2,500	.....	450	84.8	.....	....	73.7	.....
.....	.....	.....	433.36	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	.....	1,184.6	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	.....	449.45	.....	.....	.....	.....	100	.....	....	100	.....

QUANTITIES— STATEMENT SHOWING CONDITION OF CON

DESIGNATION.	AMOUNT DONE DURING OCTOBER, 1899.				TOTAL DONE TO		
	Main Channel.			Piles Lineal Feet.	*Main Channel.*		
	Glacial Drift. Cu. Yds	Solid Rock. Cu. Yds	Mas'y& Concr't Cu. Yds		Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds.	Retaining Wall. Cu. Yds.
Wire Mills Road Bridge, Main Channel, Sec. 16	.....	.....	.....	.....	.....	603	.....
E., J. & E. R. R. Co.'s Bridge, between Secs. 16 and 17	.....	.....	.....	.....	.....	.....	.....
Towpath Bridge, Sec. 17	.....	.....	.....	.....	.....	.....	.....
Cass Street Bridge. Sec. 18	.....	.....	.....	.....	.....	.....	.....
Jefferson Street Bridge, Sec. 18	3,220	.....	.....	.....	3,220	.....	.....
C., R. I. & P. R. Y. Co.'s Bridge, Sec. 18	.....	.....	670	.....	.....	1,300	.....
Totals	168,052	52,874	4,178.44	1,868	27,962,409.6	12,825,054.1	360,749.54

* 594—River Diversion.
† 4,650—Retaining Wall.
‡ Retaining Wall.
§ 200—Retaining Wall.

STRUCTION CONTRACTS NOVEMBER 1, 1899—*Continued.*

DATE.				ESTIMATED REMAINING TO BE DONE.				PERCENTAGE COMPLETED.				
River Diversion.		Piles. Lineal Feet.	Masonry and Concr't. Cu. Yds.	*Main Channel.*				Main Channel Excava'n	River Divers'n.	Ret. Wall	Masonry and Concr't	Piles.
Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds.			Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds	Piles Lin. Ft.	Mas'y & Concr't Cu. Yds					
.....	.....	.....	566.57	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	.....	1,041.84	.....	.....	.....	.....	.....	.....	....	100	.....
.....	.....	.....	.....	.....	.....	.....	845	.....	.....	....	00	.....
.....	.....	.....	.....	335	180	.....	696	00	.....	....	00	.....
.....	.....	.....	.....	1,050	2,755	.....	1,242	45.8	.....	....	00	.....
.....	.....	.....	1,070	.....	.....	.....	256	100	.....	....	80.7	.....
1,810,219	258,659	108,951.5	56,313.95	474,256	113,041	92,846	82,388	98.6	100	99	63.5	54

COMPLETION OF CONTRACT FOR SUBSTRUCTURE OF C. T. T. R. R. BRIDGE OVER DESPLAINES RIVER.

The Clerk presented, and read, a report from the Chief Engineer, being final certificate with reference to the completion of the contract with Messrs. Heldmaier & Neu for the substructure for the C. T. T. R. R. Co.'s Bridge over Desplaines River on Section E.

Mr. Jones, seconded by Mr. Carter, moved that the report be received and that the President and Clerk be directed to pay to said contractors the sum of $1,132.76, the amount fund to be due in said final certificate, upon the execution by the said contractors, of a proper receipt for same in the usual form as heretofore.

The following is

THE REPORT:

"CHICAGO, December 13, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN — I hereby certify that Heldmaier & Neu have completed all of the work covered by their contract dated August 24, 1898, and by my orders under the "extra work" clause, for the substructure of the C. T. T. R. R. Co.'s Bridge over the Desplaines River on Contract Section "E" to the full satisfaction of the Chief Engineer.

This certificate is given subject to any unaccrued or unmatured obligations imposed by the contract.

The present statement of this contract is as follows:

Excavation, 1,433 cu. yds. at 45c.....	$ 644 85
Excavation, 1,956 cu. yds. at 65c.....	1,271 40
Sheet piling and bracing, 11,996 ft. B. M. at $25.00 per M	299 90
Portland cement concrete, 221.17 cu. yds. at $8.50.....	1,879 95
Masonry, 432.27 cu. yds. at $7.60.....	3,285 25
Masonry removed, 140.78 cu. yds. at $2.25.....	316 76
Strengthening trestle (force account work).....	4 60
Building crib under temporary trestle (force account work).....	26 54
Total amount of contract.....	$ 7,729 25
Amount paid on previous vouchers.....	6,596 49
Amount due and unpaid.....	$ 1,132 76

Respectfully submitted,

(Signed) ISHAM RANDOLPH,
Chief Engineer."

COMPLETION OF CONTRACT FOR REMAINDER OF WORK ON SECTION G.

The Clerk presented, and read, a report from the Chief Engineer, being final certificate with reference to the completion of the remainder of the work on contract with Messrs. Gahan & Byrne for work on Section G.

Mr. Carter, seconded by Mr. Kelly, moved that the report be received and that the President and Clerk be directed to pay to said contractors the sum of $1,811.04, the sum found to be due in said final certificate, upon the execution by said contractors of a proper receipt for same in the usual form as heretofore.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly and Wenter—seven. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, December 13, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN — I hereby certify that Gahan & Byrne, contractors, have completed all of the work covered by their contract dated December 27, 1893, for the completion of Section "G", in accordance with said contract and to the satisfaction of the Chief Engineer.

An estimate was returned on this Section September 29, 1897, covering all work done up to that date prior to which operations had to be suspended on account of the inability of the Sanitary District to give possession of the Santa Fe right of way. The voucher now rendered is final for the work which was unfinished at the time of the suspension noted. These contractors filed certain claims for compensation which have been adjudicated by me and are covered in a separate report.

This certificate is given subject to any unaccrued or unmatured liabilities or duties growing out of said contract.

The total amount of work involved in completing the section for which final voucher has not been heretofore rendered is as follows:

Glacial drift, 48,868 cu. yds. at 28c.....	$13,683 04
Labor and material for pumping.....	116 20

Labor removing dam across Main Channel near Station 362, 944 cu. yds at 28c...	$ 264 32
Total	$14,063 56
Less amount paid on previous estimates	12,252 52
Total amount due and unpaid	$ 1,811 04

Respectfully submitted,

(Signed) ISHAM RANDOLPH,

Chief Engineer.

COMPLETION OF CONTRACT FOR REMAINDER OF WORK ON SECTION H.

The Clerk presented, and read, a report from the Chief Engineer, being final certificate with reference to the completion of the remainder of the work on contract with Gahan & Byrne for work on Section H.

Mr. Carter, seconded by Mr. Jones, moved that the report be received and that the President and Clerk be directed to pay to said contractors the sum of $9,607.03, the amount found to be due in said final certificate, upon the execution by said contractors of a proper receipt for same in the usual form as heretofore.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly and Wenter—seven. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, Dec. 13, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I hereby certify that Gahan & Byrne, contractors, have completed all their work covered by their contract dated December 27, 1893, for the completion of Section "H", in accordance with the said contract and to the full satisfaction of the Chief Engineer.

An estimate was rendered on November 30, 1896 covering the work done up to that date prior to which operations had to be suspended on account of the inability of the Sanitary District to give possession under the Santa Fe right of way. The voucher now rendered is final for the work that was unfinished at the time of the suspension noted.

These contractors filed certain claims for compensation which have been adjudicated by me and covered in a separate report. This certificate is given subject to any unaccrued or unmatured liabilities or duties growing out of the said contract.

The total amount of work involved for completing the section for which final voucher has not heretofore been rendered is as follows:

Glacial Drift, 275,219 cu. yds. at 29c	$79,813.51
Entire compensation for delay suffered by, and work done on making cut to draw off water impounded east of west line of Section "H"	3,950.00
Total	$83,763.51
Less amount paid on previous estimates	74,156.48
Amount due and unpaid	$ 9,607.03

Respectfully submitted,

(Signed) ISHAM RANDOLPH,

Chief Engineer.

REPORT IN REFERENCE TO ORDINANCE OF CITY OF JOLIET AND PASSAGE OF DISTRICT ORDINANCE ACCEPTING SAME.

On behalf of the Committee on Engineering, Mr. Braden presented, and the Clerk read, a report from that Committee in reference to, and accompanied by, a form of District ordinance accepting an ordinance passed by the City of Joliet, granting permission and authority to the Sanitary District of Chicago to change the plans contemplated in an ordinance of said City of Joliet heretofore passed, the report recommending that the said ordinance of the City of Joliet be accepted by the passage of the ordinance of the Board of Trustees in the form therewith submitted.

Mr. Braden, seconded by Mr. Jones, moved that the report be adopted and that the accompanying District ordinance be passed.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly and Wenter—seven. Nays—none.

Upon this result the President declared the motion carried.

VALUES— STATEMENT SHOWING CONDITION OF

Designation.	Amount earned during Oct., 1899.				Amount earned to date.			
	Main Channel.	Bridges.	General.	Total.	Main Channel.	River Diversion.	Bridges.	General.
Chicago River Imp'ment	$51,284 56			$51,284 56	$ 500,153 95			
O	9,755 36	$11,242 70		20,998 06	396,340 71		$ 107,775 52	
N	12,430 74	75 67		12,506 41	248,262 04		3,600 69	
M.	432 37			432 37	161,471 81			
L					217,287 06			
K	1,319 45	546 89		1,866 34	303,130 57		8,195 02	
I.					289,846 00			
H	5,742 58			5,742 58	316,658 63			
G					396,638 40			
F					341,404 40	$ 75,627 73		
E		102 36		102 36	758,425 37	29,091 91	15,775 70	$ 268 00
D					592,089 29	2,880 54		
C.					443,342 59	40,135 18		781 63
B					438,986 42	59,451 34		150 00
A					801,584 08	115,741 73		
1.					1,210,660 37	143,908 29	1,912 00	30 00
2.					377,695 00	63,190 86		90 00
3.					840,952 98	338 42		
4.					975,248 98	88,304 43		85 25
5.					749,207 28	6,653 64		
6.					689,104 96	55,911 37		
7.					722,544 74	66,193 19		8,758 00
8.	6,174 54			6,174 54	898,991 80	89,683 90	19,853 89	2,560 05
9.					794,338 28	28,573 72	1,012 30	
10.					921,454 79	78,729 58		8,952 38
11.					797,717 50	43,854 42		
12.	8,592 20			8,592 20	849,768 91	21,768 52	1,086 87	
13.					819,388 19			
14					931,457 10			
15.					551,915 85	117 61		
16.	5,142 11			5,142 11	70,438 77		1,500 00	
17.	29,510 82			29,510 82	352,028 00			
18.	56,052 13	2,343 66		58,395 79	288,761 96		14,749 19	
Disposal Wks. at Lockp't	444 70			444 70	263,010 87			
Repairing I. & M. Canal.								18,052 85
Van Buren St. Approach Span, Chicago River...							4,050 00	
Taylor St. Bridge, Chicago River		4,638 34		4,638 34			29,421 73	
C. T. T. R. R. Co.'s Br. Chicago River		14,877 58		14,877 58			79,884 26	
S. W. Blvd. Bridge, M. C., Sec. O							149,962 42	
Pan Handle Bridge, M. C., Sec. O		50,595 54		50,595 54			214,136 43	
C., M. & N. R. R. Co.'s Br., M. C., Sec. N.		3,177 99		3,177 99			170,980 74	
C., M. & N. R. R. Co.'s Br., Kedzie Av., Sec. N							14,515 47	
Kedzie Av. Bridge, M. C., Sec. N							43,118 58	
A., T. & S. F. Ry. Co.'s Br., M. C., Sec. N		57 55		57 55			80,505 93	
Belt Ry. of Chicago Br., M. C., Sec. K		697 50		697 50			1,946 50	
A., T. & S. F. Ry. Co.'s Br., M. C., Sec. G							114,305 72	
A., T. & S. F. Ry. Co.'s Br., D. R., Sec. F							19,210 73	
Lyons-Summit Road Br., D. R., Sec. E							13,220 47	
Lyons-Summit Road Br., M. C., Sec. F							41,193 18	
C. T. T. R. R. Co.'s Br., M. C., Sec. E							50,652 72	
C. T. T. R. R. Co.'s Br., D. R., Sec. E		1,345 65		1,845 65			11,985 20	
Willow Spgs. Highway Br., M. C., Sec. 1							22,968 52	
A., T. & S. F. Ry. Co.'s Bridge, M. C. and Stephen st. Subway, Sec. 8		10,479 35		10,479 35			124,477 21	
A., T. & S. F. Ry. Co.'s Br., D. R., Sec. 8							23,275 07	
Lemont Highway Br., M. C., Sec. 8							21,227 39	

CONSTRUCTION CONTRACTS, NOVEMBER 1, 1899.

Total.	Amount Paid to Date.	Remaining to be Earned.			Remaining to be Paid on Vouchers.		
		Main Channel.	Bridges.	Total.	Retained Percentages.	Unpaid Vouchers.	Total.
$ 500,153 95	$ 436,141 39	$ 224,533 92	.....	$ 224,533 92	$ 35,515 86	$ 28,496 70	$ 64,012 56
504,116 33	490,089 01	73,286 54	$ 14,232 19	87,518 73	9,649 69	4,377 53	14,027 22
251,862 73	235,754 77	18,592 80	.....	18,592 80	10,245 99	5,861 97	16,107 96
161,471 81	161,033 98	.....	.....	.....	.....	437 83	437 83
217,287 06	217,287 06	.....	.....	.....	.....	.....	.....
311,325 59	308,514 70	7,794 05	7,553 38	15,347 43	2,264 00	546 89	2,810 89
289,846 00	289,846 00	.....	.....	.....	.....	.....	.....
316,658 63	314,074 15	9,607 03	.....	9,607 03	.....	2,584 48	2,584 48
398,638 40	398,638 40	1,811 04	.....	1,811 04	.....	.....	.....
417,032 13	375,082 00	.....	.....	.....	34,103 38	7,846 75	41,950 13
793,552 98	693,616 86	29 58	98 84	128 42	97,406 83	7,529 29	104,936 12
594,919 83	594,919 83	.....	.....	.....	.....	.....	.....
484,259 40	484,259 40	.....	.....	.....	.....	.....	.....
498,587 76	498,587 76	.....	.....	.....	.....	.....	.....
917,325 81	917,325 81	.....	.....	.....	.....	.....	.....
1,356,510 66	1,349,615 00	.....	.....	.....	6,179 83	715 83	6,895 66
940,975 86	940,975 86	.....	.....	.....	.....	.....	.....
841,291 35	841,291 35	1,310 00	.....	1,310 00	.....	.....	.....
1,058,638 66	1,058,638 66	450 00	.....	450 00	.....	.....	.....
755,860 92	755,860 92	.....	.....	.....	.....	.....	.....
745,016 33	745,016 33	.....	.....	.....	.....	.....	.....
797,495 93	797,495 93	.....	.....	.....	.....	.....	.....
1,011,109 65	1,003,650 49	5,625 00	.....	5,625 00	1,544 05	5,915 11	7,459 16
819,424 30	819,424 30	.....	.....	.....	.....	.....	.....
1,009,136 70	1,009,136 70	.....	.....	.....	.....	.....	.....
841,571 92	841,571 92	.....	.....	.....	.....	.....	.....
872,624 30	867,145 51	4,526 62	.....	4,526 62	.....	5,478 79	5,478 79
819,388 19	819,388 19	4,879 30	.....	4,879 30	.....	.....	.....
931,457 10	931,457 10	1,600 00	.....	1,600 00	.....	.....	.....
552,033 46	552,033 46	.....	.....	.....	.....	.....	.....
71,938 77	58,828 72	4,728 75	.....	4,728 75	8,562 94	4,482 11	13,045 05
352,023 00	315,587 55	101,799 10	.....	101,799 10	24,708 91	11,726 54	36,435 45
298,511 15	236,448 88	101,959 04	1,349 49	103,308 53	33,391 72	28,670 55	62,062 27
263,010 37	262,682 52	150 00	.....	150 00	.....	327 85	327 85
18,052 85	18,052 85	.....	.....	.....	.....	.....	.....
4,050 00	4,050 00	.....	20,192 10	20,192 10	.....	.....	.....
29,421 73	23,268 80	.....	51,618 39	51,618 39	2,094 38	4,058 55	6,152 93
79,884 26	75,230 38	.....	292,500 81	292,500 81	1,075 23	3,578 65	4,653 88
149,962 42	145,734 20	.....	.....	.....	4,228 22	.....	4,228 22
214,136 43	175,083 80	.....	348,862 37	348,862 37	10,807 88	28,244 75	39,052 63
170,980 74	170,980 74	.....	12,000 00	12,000 00	.....	.....	.....
14,515 47	14,515 47	.....	.....	.....	.....	.....	.....
43,118 58	43,118 58	.....	5,400 00	5,400 00	.....	.....	.....
80,505 93	80,448 38	.....	2,086 06	2,086 06	.....	57 55	57 55
1,946 50	1,092 88	.....	211,374 60	211,374 60	243 31	610 31	853 62
114,305 72	114,305 72	.....	.....	.....	.....	.....	.....
19,210 73	19,210 73	.....	.....	.....	.....	.....	.....
13,220 47	13,220 47	.....	.....	.....	.....	.....	.....
41,193 18	41,193 18	.....	.....	.....	.....	.....	.....
50,682 75	50,682 75	.....	.....	.....	.....	.....	.....
11,985 20	9,429 03	.....	5,122 05	5,122 05	937 91	1 618 21	2,556 17
22,968 52	22,968 52	.....	.....	.....	.....	.....	.....
124,477 21	82,725 14	.....	17,001 79	17,001 79	22,884 64	18,867 43	41,752 07
23,275 07	23,275 07	.....	.....	.....	.....	.....	.....
21,227 39	21,227 39	.....	.....	.....	.....	.....	.....

VALUES— STATEMENT SHOWING CONDITION OF

Designation.	Amount earned during Oct., 1899.				Amount earned to date.			
	Main Channel.	Bridges.	General.	Total.	Main Channel.	River Diversion.	Bridges.	General.
Lemont Highway Br., D. R., Sec. 8	.....	.....	.....	.....	.....	.....	$ 22,329 89	.....
Western Stone Co.'s Br., D. R., Sec. 10	.....	.....	.....	.....	.....	.....	15,983 63	.....
Romeo Highway Br., M. C., Sec. 12	.....	$ 354 09	.....	$ 354 09	.....	.....	30,065 23	.....
Lockport Highway Br., M. C., Sec. 16	.....	.....	.....	.....	.....	.....	16,943 08	.....
Wire Mills Rd. Br., M. C., Sec. 16	.....	1,831 98	.....	1,831 98	.....	.....	17,429 51	.....
E. J. & E. R. R. Co.'s Br., bet. Secs. 16 and 17	.....	.....	.....	.....	.....	.....	41,984 62	.....
Towpath Bridge, Sec. 17	.....	187 79	.....	187 79	.....	.....	187 79	.....
Cass St. Bridge, Sec. 18	.....	.....	.....	.....	.....	.....	.....	.....
Jefferson St. Bridge, Sec. 18	.....	5,017 50	.....	5,017 50	.....	.....	5,017 50	.....
C. R. I. & P. R.R. Bridge, Sec. 18	.....	5,360 00	.....	5,360 00	.....	.....	11,810 00	.....
Crib work at Joliet	.....	.....	$1,420 00	1,420 00	.....	.....	.....	$34,727 5
Totals	$186,881 56	$118,482 14	$1,420 00	$361,733 70	$ 19,802,752 10	$1,000,156 38	$1,568,300 73	$74,467 6

CONSTRUCTION CONTRACTS, NOVEMBER 1, 1899—*Continued.*

Total.	Amount Paid to Date.	REMAINING TO BE EARNED.			REMAINING TO BE PAID ON VOUCHERS.		
		Main Channel.	Bridges.	Total.	Retained Percentages.	Unpaid Vouchers.	Total.
$ 22,329 89	$ 22,329 89	.....	.....	.....	.....	.....	.....
15,983 63	15,983 63	.....	.....	.....	.....	.....	.....
30,085,23	28,196 69	.....	.....	.....	.....	$ 1,888 54	$ 1,888 54
16,943 08	16,748 16	.....	.....	.....	$ 194 92	.....	194 92
17,429 51	15,361 28	.....	.....	.....	324 84	1,743 39	2,068 23
41,984 62	41,984 62	.....	.....	.....	.....	.....	.....
187 79	.....	.....	$ 29,066 85	$ 29,066 85	.....	187 79	187 79
.....	.....	.....	38,265 75	38,265 75	.....	.....	.....
5,017 50	508 12	.....	40,609 75	40,609 75	627 19	3,887 19	4,514 38
11,810 00	7,043 75	.....	24,798 00	24,798 00	1,476 25	3,290 00	4,766 25
34,727 56	34,727 56	*$ 2,610 00	.....	* 2,610 00	.....	.....	.....
$ 22,445,676 89	$ 21,954,178 29	$365,292 77	$1,122,132 42	$1,687,425 19	$308,467 97	$183,030 63	$491,498 60

* General account.

QUANTITIES— STATEMENT SHOWING CONDITION OF CON

DESIGNATION.	AMOUNT DONE DURING OCTOBER, 1899. Main Channel. Glacial Drift. Cu. Yds	Solid Rock. Cu. Yds	Mas'y & Concr't Cu. Yds	Piles Lineal Feet.	TOTAL DONE TO Main Channel. Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds.	Retaining Wall. Cu. Yds.
Chicago River Improvement	52,800		1,763		976,000		
O	14,809				1,716,586		
N	30,372				1,018,718		
M					730,573		
L					1,102,980		
K	2,399				1,177,331		
I					1,159,384		
H	19,802				1,066,242		
G					1,895,258		
F					1,093,047	37,448	
E					1,907,362	212,669	
D					1,934,890	87,030	
C					1,881,545		
B					1,570,036	15,586	
A					2,560,648	13,312	
1					1,282,267	554,326	68,256
2					724,905	483,750	38,506
3					425,705	760,778	14,089
4					1,096,746	262,428	68,169
5					952,526	378,609	56,059.1
6					683,248	549,355	30,361.7
7					181,721	800,939	6,179.9
8		4,900			50,170	1,154,552.1	2,874.9
9					76,692	1,003,769	
10					31,743	1,141,890	
11					44,021	989,711	
12					44,030	998,709	9,286.94
13					33,810	1,033,665	10,838
14					380,165	1,022,796	23,567.5
15					35,324	647,039	44,811.2
16	4,000	8,000			28,583	147,067	
17	20,600	21,800			210,700	327,900	1,500
18	16,500	15,200	†4,650		103,350	91,300	6,300
Disposal Works at Lockport						10,111	
Van Buren Street App. Span, Chicago River							
Taylor Street Bridge, Chicago River			357	622	2,050		
C. T. T. R. R. Co.'s Bridge, Chicago River	2,000			1,246	6,800		
Southwest Boulevard Bridge, Main Channel, Sec. O					9,873.5		
Eight Track Bridge, Main Channel, Sec. O			1,051		11,000		
C., M. & N. R. R. Co.'s Bridge, Main Channel. Sec. N					17,849		
C., M. & N. R. R. Co.'s Bridge, Kedzie Avenue, Sec. N					2,869		
Kedzie Avenue Bridge, Main Channel, Sec. N					7,101		
A., T. & S. F. Ry. Co.'s Bridge, Main Channel, Sec. N					7,445		
Belt Railway Co. of Chicago's Bridge, Main Channel, Sec. K	1,550				2,050		
A., T. & S. F. Ry. Co.'s Bridge, Main Channel, Sec. G					85,258		
Lyons-Summit Road Bridge, Desplaines River, Sec. E							
Lyons-Summit Road Bridge, Main Channel, Sec. F					2,270		
C., T. T. R. R. Co.'s Bridge, Main Channel, Sec. E					4,748.1		
C., T. T. R. R. Co.'s Bridge, Desplaines River, Sec. E	*594		177.44				
Willow Springs Highway Bridge, Main Channel, Sec. 1					2,084		
A., T. & S. F. Ry. Co.'s Bridge, M. C. and Stephens St. subway, Sec. 8		2,650	160		98,315	5,130	
Lemont Highway Bridge, Main Channel, Sec. 8					2,006	202	
Romeo Road Bridge, Main Channel, Sec. 12		324			1,170	2,454	
Lockport Road Bridge, Section 16						526	

STRUCTION CONTRACTS NOVEMBER 1, 1899.

DATE.				ESTIMATED REMAINING TO BE DONE.				PERCENTAGE COMPLETED.				
River Diversion.		Piles. Lineal Feet.	Masonry and Concr't. Cu. Yds.	*Main Channel.*				Main Channel Excava'n	River Divers'n.	Ret. Wall	Masonry and Concr't	Piles.
Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds.			Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds	Piles Lin. Ft.	Mas'y & Concr't Cu. Yds					
.....	.....	73,300	8,133	60,600	.....	15,324	2,295	94.2	.....	....	.....	82.7
.....	.....	.....	.....	151,299	.....	.....	.....	91.9	.....	....	.....	.....
.....	.....	.....	.....	67,772	.....	.....	.....	93.8	.....	....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	...	.....	.....
.....	.....	.....	.....	14,171	.....	.....	.....	98.8	.....	....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	....	.....	.....
.....	.....	.....	.....	19,507	.....	.....	.....	98.2	.....	....	.....	.....
.....	.....	.....	.....	5,524	.....	.....	.....	99.6	.....	....	.....	.....
179,447	.....	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
95,718	.....	.....	.....	94	6	.....	.....	99.9	100	....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	....	.....	.....
170,788	.....	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
212,486	.....	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
359,353	.....	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
174,655	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
119,234	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
.....	.....	.....	.....	.....	140	.....	‡200	99.9	.....	98.6	.....	.....
106,808	17,857	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
12,256	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
118,647	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
97,917	48,102	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
57,902	99,399	.....	.....	.....	5,000	.....	.....	99.6	100	100	.....	.....
40,763	16,873	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
30,313	58,276	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
12,699	15,677	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
11,739	7,475	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	...	.....	.....
.....	.....	.....	.....	.....	.....	.....	‡200	100	.....	99.1	.....	.....
619	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
.....	.....	.....	.....	.....	6,950	.....	.....	96.2	.....	....	.....	.....
.....	.....	.....	.....	76,770	56,760	.....	‡3,155	80	.....	82.2	.....	.....
.....	.....	.....	3,993	85,000	38,800	.....	§1,000	72.5	.....	96.9	83.3	.....
.....	.....	.....	11,454.1	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	.....	.....	3,951	.....	2,200	784	00	.....	....	00	00
.....	.....	4,285	657	1,200	.....	8,655	331	68	.....	....	66 5	33.1
.....	.....	1,246	.....	10,300	.....	30,060	8,800	39.8	.....	....	00	040
.....	.....	10,813	4,421.94	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	.....	2,266	4,200	.....	29,600	12,094	76.3	.....	....	15.7	00
.....	.....	5,948	4,236.77	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	.....	595.69	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	.....	2,886.84	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	4,544	2,489.36	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	.....	.....	6,050	.....	7,007	3,795	25.3	.....	....	00	00
.....	.....	5,748	2,929.03	.....	.....	.....	.....	100	.....	....	100	100
5,924	.....	.....	793.3	.....	.....	.....	.....	.....	100	....	100	.....
.....	.....	1,501	2,087.2	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	1,166.5	2,162.79	.....	.....	.....	.....	100	.....	....	100	100
2,956	.....	.....	653.44	433	.....	.....	.....	.....	100	....	100	.....
.....	.....	400	598.6	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	.....	1,260.07	16,000	2,500	.....	450	84.8	.....	....	73.7	.....
.....	.....	.....	433.36	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	.....	1,184.6	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	.....	449.45	.....	.....	.....	.....	100	.....	....	100	.....

QUANTITIES— STATEMENT SHOWING CONDITION OF CON

DESIGNATION.	AMOUNT DONE DURING OCTOBER, 1899.				TOTAL DONE TO		
	Main Channel.			Piles Lineal Feet.	*Main Channel.*		
	Glacial Drift. Cu. Yds	Solid Rock. Cu. Yds	Mas'y& Concr't Cu. Yds		Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds.	Retaining Wall. Cu. Yds.
Wire Mills Road Bridge, Main Channel, Sec. 16	.....	.....	.....	.....	.....	603	.....
E., J. & E. R. R. Co.'s Bridge, between Secs. 16 and 17	.....	.....	.....	.....	.....	.....	.....
Towpath Bridge, Sec. 17	.....	.....	.....	.....	.....	.....	.....
Cass Street Bridge. Sec. 18	.....	.....	.....	.....	.....	.....	.....
Jefferson Street Bridge, Sec. 18	3,220	.....	.....	.....	3,220	.....	.....
C., R. I. & P. R. Y. Co.'s Bridge, Sec. 18	.....	.....	670	.....	.....	1,300	.....
Totals	168,052	52,874	4,178.44	1,868	27,962,409.6	12,825,054.1	380,749.54

* 594—River Diversion.
† 4,650—Retaining Wall.
‡ Retaining Wall.
§ 200—Retaining Wall.

STRUCTION CONTRACTS NOVEMBER 1, 1899—*Continued.*

DATE.				ESTIMATED REMAINING TO BE DONE.				PERCENTAGE COMPLETED.				
River Diversion.		Piles. Lineal Feet.	Masonry and Concr't. Cu. Yds.	*Main Channel.*				Main Channel Excava'n	River Divers'n.	Ret. Wall	Masonry and Concr't	Piles.
Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds.			Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds	Piles Lin. Ft.	Mas'y& Concr't Cu. Yds					
.....	.....	.....	566.57	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	.....	1,041.84	.....	.....	.....	.....	.....	.....	....	100	.....
.....	.....	.....	.....	.....	.....	.....	845	.....	.....	....	00	.....
.....	.....	.....	.....	335	120	.....	696	00	.....	....	00	.....
.....	.....	.....	.....	1,050	2,755	.....	1,242	45.8	.....	....	00	.....
.....	.....	.....	1,070	.....	.....	.....	256	100	.....	....	80.7	.....
1,810,219	258,659	108,951.5	56,313.95	474,256	113,041	92,846	82,388	98.6	100	99	68.5	54

REPORT IN REFERENCE TO RELEASE OF BOND ON CONTRACT FOR SUBSTRUCTURE OF WILLOW SPRINGS HIGHWAY BRIDGE ACROSS MAIN CHANNEL ON SECTION 1.

Mr. Carter, Chairman, presented, and the Clerk read, a report from the Committee on Finance with reference to, and accompanied by, a communication from James A. Sackley, successor to Messrs. Sackley & Peterson, in regard to the release of bond on contract for substructure of Willow Springs Highway Bridge across Main Channel on Section 1, the report recommending that the sureties on said bond be released, the contractors, however, to remain liable thereon.

Mr. Carter, seconded by Mr. Eckhart, moved that the report be adopted and the recommendations contained therein concurred in.

On roll call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Kelly, Mallette, Smyth and Wenter—eight. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, December 20, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—The Committee on Finance has received a communication addressed to the Clerk of the District by James A. Sackley, successor to Messrs. Sackley & Peterson, requesting the release of the surety on the bond given by said firm upon their contract for the erection of the substructure for the bridge known and distinguished as the Willow Springs Highway Bridge crossing the Main Channel.

The Committee advises that the work upon this contract has been fully completed; that final payment was authorized on January 14, 1899 (page 5424 of the proceedings), and a final receipt taken from said contractors for payment of the amount so ordered.

Your Committee recommends, therefore, that the surety on the bond of said Sackley & Peterson be released, the contractors, however, to remain liable thereon.

Respectfully submitted,

(Signed) Z. R. CARTER,
Chairman.
B. A. ECKHART,
FRANK WENTER,
THOMAS KELLY,
ALEX. J. JONES,
Committee on Finance."

(One enclosure.)

REPORT AND ORDINANCE FOR $1,000,000 OF CURRENCY BONDS—NINTH ISSUE.

Mr. Carter, Chairman, presented, and the Clerk read, a report from the Committee on Finance transmitting an ordinance providing for the issue of $1,000,000 of 3½ per cent currency bonds—ninth issue; said report recommending that the Clerk be authorized, under direction of the Committee on Finance, to invite proposals for purchase of said issue, bids to be opened on the 27th day of December, 1899.

Mr. Carter, seconded by Mr. Wenter, moved that the report be adopted and the recommendations contained therein concurred in.

On roll call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—nine. Nays—none.

Upon this result the President declared the motion carried.

Mr. Kelly, seconded by Mr. Carter, then moved that the accompanying ordinance be passed.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—nine. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

CHICAGO, December 20, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Your Committee on Finance transmit herewith an ordinance providing for the issue of one million

($1,000,000) dollars of three and one-half (3½) per cent currency bonds of the Sanitary District of Chicago, to be the ninth (9th) issue; said bonds to be of the denomination of one thousand ($1,000) dollars each, and to be dated January 2, A. D. 1900, interest to be payable on the first day of July and January in each year, and recommend the passage of said ordinance by your Honorable Body.

Your Committee further recommend that the Clerk of this District be authorized and directed to advertise, under the direction of the Committee on Finance, for proposals for purchasing said ninth (9th) issue of bonds, to be issued in accordance with said ordinance, bids to be opened Wednesday, December 27, 1899.

Respectfully submitted

(Signed) Z. R. CARTER,
Chairman.
B. A. ECKHART,
FRANK WENTER,
THOMAS KELLY,
ALEX. J. JONES,
Committee on Finance."

(Accompanied by ordinance.)

The following is

THE ORDINANCE:

"An ordinance providing for the issuance of bonds of the Sanitary District of Chicago to the amount of $1,000,000.

Be it ordained by the Board of Trustees of the Sanitary District of Chicago:

SECTION 1. That there be borrowed the sum of one million ($1,000,000.00) dollars for the corporate purposes of the Sanitary District of Chicago, and that interest bearing coupon bonds be issued therefor to the amount of one million ($1,000,000.00) dollars by said Sanitary District of Chicago, said bonds to be of the denomination of one thousand ($1,000.00) dollars each, all to bear date of the second day of January, 1900; fifty thousand ($50,000.00) dollars of the principal of said bonds to be payable on the first day of January of the year 1901, and of each of the years thereafter following, until and including the year 1920, said bonds to be numbered consecutively from fourteen thousand and ninety-one (14,091) to fifteen thousand and ninety (15,090), inclusive, and to bear interest at the rate of three and one-half (3½) per centum per annum from the date thereof. Interest to be payable on the first day of July and of January of each year, and to be evidenced by coupons attached to each bond, to be numbered consecutively, each coupon to bear the number of the bond to which it is attached, and to be for the sum of seventeen and fifty one-hundredths ($17.50) dollars (except the first coupon on each bond of this issue, which shall be for the sum of seventeen and forty one-hundredths ($17.40) dollars), and the first, or number one (1), coupon of each bond to be payable on the first day of July, 1900, and the next, or number two (2), coupon on each bond to be payable on the first day of January, 1901, and so on, each succeeding coupon being payable six (6) months after the preceding one, both principal and interest to be payable at the office of the Treasurer of the Sanitary District of Chicago, interest to be payable only upon the presentation and surrender of the proper interest coupons. Such bonds shall be signed on behalf of the Sanitary District of Chicago by the President of the Board of Trustees and countersigned by the Clerk of the Sanitary District of Chicago, and attested by the seal of said Sanitary District.

SECTION 2. That said bonds, when they are executed, shall be deposited with the Treasurer of said District for safe keeping, and shall be sold at such price and for such rates as the Board of Trustees of this District shall, from time to time, determine and direct, and the proceeds arising from the sale of said bonds shall be received by the Treasurer of said District as such, and shall be used for the corporate purposes thereof, as may be directed, from time to time, by the Board of Trustees.

SECTION 3. That in each of the hereinafter mentioned years there shall be and hereby is levied and assessed on the taxable property within said District, the sums respectively, as follows:

For the year 1900, eighty-four thousand nine hundred (84,900.00) dollars;

For the year 1901, eighty-three thousand two hundred and fifty 83,250.00) dollars;

For the year 1902, eighty-one thousand five hundred (81,500.00) dollars;

For the year 1903, seventy-nine thousand seven hundred and fifty (79,750.00 dollars;

For the year 1904, seventy-eight thousand (78,000.00) dollars.

For the year 1905, seventy-six thou-

sand two hundred and fifty (76,250.00) dollars.

For the year 1906, seventy-four thousand five hundred (74,500.00) dollars;

For the year 1907, seventy-two thousand seven hundred and fifty (72,750.00) dollars;

For the year 1908, seventy-one thousand (71,000.00) dollars;

For the year 1909, sixty-nine thousand two hundred and fifty (69,250.00) dollars;

For the year 1910, sixty-seven thousand five hundred (67,500.00) dollars;

For the year 1911, sixty-five thousand seven hundred and fifty (65,750.00) dollars;

For the year 1912, sixty-four thousand (64,000.00) dollars;

For the year 1913, sixty-two thousand two hundred and fifty (62,250.00) dollars;

For the year 1914, sixty thousand five hundred (60,500.00) dollars;

For the year 1915, fifty-eight thousand seven hundred and fifty (58,750.00) dollars;

For the year 1916, fifty-seven thousand (57,000.00) dollars;

For the year 1917, fifty-five thousand two hundred and fifty (55,250.00) dollars;

For the year 1918, fifty-three thousand five hundred (53,500.00) dollars;

For the year 1919, fifty-one thousand seven hundred and fifty (51,750.00) dollars;

For the purpose of paying the principal and interest of the bonds issued under this ordinance, said sums so levied being sufficient to pay the interest on said bonds as it falls due, and also to pay and discharge the principal thereof as the same shall fall due; and the Clerk of this District is hereby directed in the year of 1900, and in each of the years thereafter, until and including the year 1919, to include the amount required by this ordinance to be raised by taxes in each of said years, respectively, in the amount which shall be certified to by the County Clerk in each of said years as the amount required to be raised by taxation in said District.

SECTION 4. Bonds, to be issued in pursuance of this ordinance, may be registered with the Treasurer of said District, and after such registry no transfer shall be valid except upon the books of said Treasurer, but the registry thereafter upon the books of the Treasurer of a transfer to bearer shall restore transferability by delivery; said bonds shall continue subject to successive registrations and transfers to bearer, as aforesaid, at the option of each holder.

SECTION 5. That the credit and resources of the Sanitary District of Chicago be, and the same are hereby, irrevocably pledged to the payment of the bonds which shall be issued in pursuance of this ordinance, and the interest thereon as it shall fall due.

SECTION 6. This ordinance shall take effect and be in force from and after its passage."

PAYMENT OF MATURING BONDS AND INTEREST.

Under the head of new business, Mr. Carter presented, and seconded by Mr. Jones, moved the adoption of the following

ORDER:

"*Ordered*, That the Clerk of the Sanitary District of Chicago be, and he hereby is, instructed to draw a warrant, payable to the order of the Treasurer of the District, for the sum of six hundred and fifty-two thousand eight hundred and twenty-five (652,825) dollars, to be used by said Treasurer in the payment of the principal and interest of bonds maturing on the first day of January, 1900, as follows:

Second issue, sixth installment	$150,000	
Fourth issue, fifth installment	200,000	
Fifth issue, fourth installment	40,000	
Sixth issue, third installment	40,000	
Total bonds		$430,000
Second issue, 6 month's interest on $2,250,000 @ 5%	$ 56,250	
Third issue, 6 month's interest on $2,250,000 @ 5%	56,250	
Fourth issue, 6 month's interest on $3,200,000 @ 4½%	72,000	
Fifth issue, 6 month's interest on $680,000 @ 4½%	15,300	
Sixth issue, 6 month's interest on $720,000 @ 4½%	16,200	
Seventh issue, 6 month's interest on $200,000 @ 3½%	3,500	

Eighth issue, 6 month's interest on $190,000 @ 3½ %	$ 3,325
Total interest.....	$222,825
Grand total.....	$652,825"

On roll-call on the motion for the adoption of the order the vote stood: Yeas — Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—nine. Nays—none.

Upon this result the President declared the motion carried.

ADJOURNMENT TO SPECIAL TIME.

Mr. Carter, seconded by Mr. Eckhart, moved that when this Board adjourns it shall adjourn to meet Thursday, December 21, 1899, at 2 o'clock P. M. sharp.

The motion prevailed unanimously and it was so ordered.

ADJOURNMENT.

On motion of Mr. Wenter, seconded by Mr. Mallette, the Board then adjourned.

Joseph F. Haas

Clerk.

PROCEEDINGS

—OF THE—

BOARD OF TRUSTEES

—OF THE—

SANITARY DISTRICT OF CHICAGO.

DECEMBER 21, 1899.

OFFICIAL RECORD.

Published by authority of the Board of Trustees of the Sanitary District of Chicago.

ADJOURNED MEETING.

The adjourned session of the four hundred and sixty-seventh regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Thursday, December 21, 1899, at 2 o'clock P. M., pursuant to adjournment.

On roll-call Messrs. Boldenweck, Braden, Carter, Eckhart, Jones, Kelly, Mallette, Smyth and Wenter—nine members, were present.

President Boldenweck then called the Board to order

REPORTS IN REFERENCE TO AGREEMENT WITH CANAL COMMISSIONERS FOR MAINTENANCE OF SUMMIT LEVEL AND SETTLEMENT OF PENDING DIFFERENCES.

On behalf of the Committee on Engineering, Mr. Mallette presented, and the Clerk read, a report from that Committee transmitting form of proposed agreement with The Canal Commissioners for the maintenance of the Summit Level and the settlement of differences now existing between the Trustees of the Sanitary District and the said Commissioners; the report recommending that the President and Clerk of the District be directed to execute said agreement, and that the Clerk be directed to deliver a copy of same so executed to The Canal Commissioners on receipt from them of a copy of same executed by their President and Secretary.

Mr. Mallette, seconded by Mr. Wenter, moved that the report be adopted and the recommendations contained therein concurred in.

Mr. Jones presented a minority report and, seconded by Mr. Smyth, moved that it be adopted.

On roll-call on the motion of Mr. Jones for the adoption of the minority

report, the vote stood: Yeas—Messrs. Braden, Jones and Smyth—three. Nays—Messrs. Boldenweck, Carter, Eckhart, Kelly, Mallette and Wenter—six.

Upon this result the President declared the motion lost.

On roll-call on the motion of Mr. Mallette for the adoption of the majority report, the vote stood: Yeas—Messrs. Boldenweck, Carter, Eckhart, Kelly, Mallette and Wenter—six. Nays—Messrs. Braden, Jones and Smyth—three.

Upon this result, the President declared the motion carried, and the majority report adopted.

Before voting on the adoption of the majority report, Mr. Mallette made the following explanation, which he asked to have printed in the Proceedings, permission being granted by unanimous consent: "The minority report refers to the necessity of a cross channel in the Calumet region. I want to say I have always been in favor of a cross channel at that point and was long before I became a member of this Board, and I am in favor of it now. In this arrangement with the Canal Commissioners it does not change the situation or the present conditions, and I do not see that it will interfere in the future with the building of this cross channel. I therefore vote aye."

Mr. Wenter, seconded by Mr. Eckhart, then moved that the said agreement be approved, and its execution be authorized as set forth in the majority report.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Carter, Eckhart, Kelly, Mallette and Wenter—six. Nays—Messrs. Braden, Jones and Smyth—three.

Upon this result the President declared the motion carried.

The following is

THE MAJORITY REPORT:

"CHICAGO, December 21, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—The Committee on Engineering beg leave to report that, after a careful consideration of the pending differences between the Canal Commissioners of the Illinois and Michigan Canal, which were recently raised by their information filed by the Attorney General on behalf of the People, asking for an injunction to restrain the Sanitary District from turning the water into its Main Channel prior to making some adequate provision for the maintenance of the Summit Level, we believe the proposed contract will definitely settle all of the salient disputes now existing between the Trustees of the Sanitary District and the Canal Commissioners, and thus put an end to a most harassing and annoying litigation, and which will enable the Trustees of this District to carry out promptly and effectively their solemn obligations to the tax payers of the Sanitary District. The questions involved in the litigation are not wholly free from doubt and we are firmly convinced that, unless an amicable adjustment of these questions is made, the Trustees could not safely move towards the opening of the Channel until the litigation has been passed upon by the Circuit Court of Appeals and, perhaps, by the Supreme Court of the United States.

Under the terms and conditions of the proposed contract the Sanitary District is only required to supply a sufficient volume of water to the Illinois and Michigan Canal to maintain navigation, and, when executed, the District will have the right to complete all the work required by it to be done under the decree of the Circuit Court of Will County in the Upper and Lower Basins and through the City of Joliet after the water has been turned into the Main Channel. In our judgment the great object of the Trustees, that is to say, the turning in of the water into the Main Channel of the District, will be accomplished by executing the proposed agreement and thereby eliminating from the difficulties which now confront us all difference of opinion which exists between the Trustees of the Sanitary District and the Canal Commissioners.

Your Committee therefore recommends to your Honorable Body that the President and Clerk of the District be directed to execute said contract, a draft of which is hereto attached in duplicate, and that the Clerk of the Board be directed to deliver a copy of said contract so executed to the Canal Commissioners, upon receiving from them a copy of said contract executed by their President and Secretary.

Respectfully submitted,

(Signed) J. P. MALLETTE,
Z. R. CARTER,
B. A. ECKHART,
THOMAS KELLY,
WM. BOLDENWECK,
FRANK WENTER,
Committee on Engineering."

The following is

THE MINORITY REPORT:

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—In the opinion of the undersigned, the contract proposed to be entered into between the Sanitary District and the Canal Commissioners imposes a perpetual burden upon the Sanitary District for which there is utterly no consideration or compensating benefits. The minority has insisted most earnestly that if any agreement should be entered into by which the Sanitary District should assume the burden of perpetually maintaining the water supply in the Summit level of the Illinois and Michigan Canal, then, and in that case, the Sag channel of the Canal, long since abandoned and of no further use in maintaining said Summit level, should be ceded to the Sanitary District for its uses in the construction of the channel soon to be necessary in connecting the Main Drainage Channel with the Calumet River.

It is no longer a matter of speculation that immediate steps must be taken to protect the water supply of 300,000 people in the southern and southeastern portion of the city by preventing the longer pollution of the Hyde Park and Lake water cribs from the sewage and poisonous drainage of the Calumet River. The early necessity of providing an increased volume of water to comply with the requirements of law, suggests that the double problem presented can be best solved by the construction of an auxiliary channel to divert the flow of the Calumet River from Blue Island into the Main Drainage Channel.

The Illinois and Michigan Canal Commissioners, while insisting upon the Sanitary District assuming the enormous burden of the contract, to day submitted, have arrogantly rejected the request of the Engineering Committee that the use of the Sag feeder for this auxiliary channel should be ceded to the Sanitary District as a partial consideration for the burden it is about to assume, and have likewise rejected the request of the Sanitary District for the poor privilege of crossing the Illinois and Michigan Canal at the Sag, in the construction of this auxiliary channel from the Calumet to the Main Drainage Channel. The insincerity of the position of the Canal Commissioners is thus clearly evidenced.

The amount necessary to change the locks, dredge the Canal and repair the pumps at Bridgeport will amount to about $50,000; and the yearly expenditure of $24,000 for pumping, which if capitalized at 8 per cent, would equal $800,000, makes a total practical expenditure of $850,000 to comply with the demands of the Canal Commissioners.

This contract is extorted from the Sanitary District, not in a spirit of compromise, but under a threat well known to the public, and clearly implied in the language of the majority report.

This demand is unjust and unconscionable, and the undersigned protest against the further surrender of the interests of Sanitary District tax payers to the demands of the Canal Commissioners.

(Signed) ALEX. J. JONES,
THOMAS A. SMYTH.

The undersigned desires to express his concurrence in all the views above expressed in the minority report, except that he is of the opinion that, had the Trustees proceeded to the immediate completion of the Channel, Gov. Tanner, at the proper time, would have granted the permit to turn in the water.

JOS. C. BRADEN."

The following is

THE FORM OF AGREEMENT:

"ARTICLES OF AGREEMENT, Made and entered into by and between The Sanitary District of Chicago, party of the first part, and The Canal Commissioners, party of the second part, *Witnesseth*:

WHEREAS, It is claimed by The Canal Commissioners that The Sanitary District of Chicago has no authority in law to impair the usefulness of the Illinois and Michigan Canal; and,

WHEREAS, It is further claimed by the said, The Canal Commissioners, that the opening of the Main Channel of The Sanitary District of Chicago, and the turning in of the water from Lake Michigan into said Main Channel will impair, if not destroy, navigation in said Illinois and Michigan Canal; and,

WHEREAS, The claims aforesaid are not conceded by The Sanitary District of Chicago; and,

WHEREAS, The parties hereto are willing to adjust and compromise the aforesaid differences existing between them, and particularly the claims of the said, The Canal Commissioners, as set forth in the information in a certain cause now pending in the Circuit Court of the

United States in and for the Northern District of Illinois, wherein the people of the State of Illinois, by E. C. Akin, their Attorney General, are complainants, and The Sanitary District of Chicago is respondent, and the claims of The Sanitary District of Chicago, as set forth in its answer and cross-bill filed in said cause, which claims are not conceded by The Canal Commissioners; and,

WHEREAS, The said parties hereto, after due and careful consideration of the premises, state that they have the power, under the laws of the State of Illinois, to enter into and perform the conditions and covenants herein set forth.

Now, Therefore, It Is Agreed By The Sanitary District of Chicago, party of the first part, and The Canal Commissioners, party of the second part, for the purpose of adjusting and compromising the pending differences existing between said parties, as above set forth, and for the further consideration of one dollar ($1.00) by each to the other paid, the receipt whereof is hereby acknowledged, and upon the further consideration of the covenants and conditions herein set forth to be performed, as herein required.

1. That The Sanitary District of Chicago will, for a period of four (4) months after the opening of its Main Channel and the turning of the water into said Channel, supply the Summit level of the Illinois and Michigan Canal with a volume of water equal to the average volume of water which has been supplied to said Illinois and Michigan Canal, by the pumps at Bridgeport, for the year 1899, which shall not be less, however, than 35,000 cubic feet per minute.

2. That The Sanitary District of Chicago will lower the lock at the junction of the Illinois and Michigan Canal with the South Branch of the Chicago River so as to maintain a depth of six and one-half (6½) feet of water over the mitre sills of said lock. This to be done prior to April 1, 1900.

3. It is further agreed that, after the expiration of the period of four (4) months herein above mentioned, The Sanitary District of Chicago will maintain throughout the Summit level of said Illinois and Michigan Canal a navigable depth of six (6) feet of water. The volume of water to be supplied for the purpose of maintaining this navigable depth of six (6) feet shall be determined by the needs of navigation only; and the said Sanitary District of Chicago shall not be required to furnish, at any time, water for water power or water power development.

4. It is further agreed that the said Sanitary District of Chicago shall have the right, and authority is hereby given said Sanitary District of Chicago, to enter upon and into said Illinois and Michigan Canal for the purpose of making such excavation in the said Summit level thereof as shall be necessary to secure the said depth of six (6) feet of water should the said Sanitary District of Chicago deem that method to be more economical than pumping sufficient volume of water to maintain six (6) feet of water in said level, said excavation to be so made as not to interfere with navigation.

5. It is further agreed that the said, The Canal Commissioners will not draw, nor permit to be drawn, water from the said Summit Level at any point or points throughout its entire length in excess of such amount as shall be absolutely necessary in order to prevent the overflow or damage to its banks and the property located adjacent thereto, and to maintain navigation throughout the levels between Lockport and the Upper Basin at Joliet, and in case any question should arise between the parties hereto as to the proper amount of water to be so drawn, such question shall be referred to the arbitration commission hereinafter provided for settlement.

6. It is further agreed that The Canal Commissioners will not object to nor seek to prevent The Sanitary District of Chicago from turning the water of its Main Channel into the Upper Basin of the Illinois and Michigan Canal prior to the completion of the work required to be executed and performed by the said Sanitary District of Chicago under and by virtue of the decree of the Circuit Court of Will County, entered by the said Court at the November term thereof, A. D. 1898, in the case of The Canal Commissioners versus The Sanitary District of Chicago; subject, however, to the following conditions and restrictions:

Should the waters of the Desplaines River, combined with the waters of the Channel of the said Sanitary District of Chicago, prior to the completion of the work required by said decree, raise the water in the Upper Basin or Channel of the said Illinois and Michigan Canal as far as Lock No. 4 to a level which would obstruct navigation by giving a head room of less than twelve (12) feet beneath the bridges crossing the said Canal, or to

such a height as, in the judgment of The Canal Commissioners or their authorized agents, would endanger the interests of the State or inflict damage upon property or vested rights for which the Canal Commissioners would be responsible, then the waters of the said Sanitary District of Chicago shall be shut off at its controlling works either wholly or to such an extent as will admit of the maintenance of navigation with the head room above specified and, in the judgment of the party of the second part, amply protect the interests and rights herein referred to; and the party of the first part hereby agrees that it will promptly, upon notice being given in writing by the said The Canal Commissioners or their authorized agents, so shut off the waters at its controlling works as herein provided, and in case a question is raised by the party of the first part as to the necessity for so closing the said controlling works, immediately after closing the same the question shall be referred to the arbitration commission hereinafter provided for, whose decision shall be final.

7. Nothing in this contract contained shall be construed so as to relieve the said Sanitary District of Chicago from performing and executing the work required and specified by said decree, the control and supervision of the work to continue as provided by the terms of said decree. It being the intention of the said Sanitary District of Chicago, in the event of its water being turned into the Upper Basin of the said Illinois and Michigan Canal prior to the completion of the work required by said decree, to complete as soon as practicable all the work required by said decree in the Upper and Lower Basins of the said Illinois and Michigan Canal and on the Chanahon Level in the City of Joliet in accordance with the specifications and terms of said decree, all work done and material used to be subject to approval in the same manner as therein provided, except as to change of location of the tail race accepted by the said The Canal Commissioners, November 9, 1899.

8. All of the work hereinabove specified to be done by the said Sanitary District of Chicago shall be performed and completed without cost to the said The Canal Commissioners, and all of said work shall be of a substantial and adequate character.

9. In case a difference of opinion should arise between the parties hereto as to the just and proper compliance with the conditions hereinbefore set forth, the questions involved shall be referred to arbitrators, one of whom shall be the Chief Engineer of the Sanitary District of Chicago and the other the General Superintendent of the Illinois and Michigan Canal, who shall each of them choose another; and in the event of these four (4) arbitrators being unable to agree, the four shall choose a fifth arbitrator and a decision of the majority of the arbitrators so chosen shall be accepted by the parties hereto as final and binding upon them.

In witness whereof, The said parties hereto have caused these presents to be executed in duplicate by the President and Clerk of the party of the first part and the President and Secretary of the party of the second part, this twenty-first day of December, A. D. 1899.

The Sanitary District of Chicago,

By .....,

President.

Attest:

....,

Clerk.

The Canal Commissioners,

By .....

President.

Attest:

.....:

Secretary."

ADJOURNMENT.

On motion of Mr. Eckhart, seconded by Mr. Mallette, the Board then adjourned.

Joseph F. Haas

Clerk.

PROCEEDINGS

—OF THE—

BOARD OF TRUSTEES

—OF THE—

SANITARY DISTRICT OF CHICAGO.

DECEMBER 27, 1899.

OFFICIAL RECORD.
Published by authority of the Board of Trustees of the Sanitary District of Chicago.

REGULAR MEETING.

The four hundred and sixty-eighth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in the rooms of the Board, Security Building, Wednesday, December 27, 1899, at 2 o'clock P. M.

On roll call, Messrs. Boldenweck, Braden, Jones, Kelly, Mallette and Wenter —six members, were present, Mr. Smyth arriving subsequently.

President Boldenweck then called the Board to order.

*VOUCHERS.

The Clerk presented the following vouchers:

ENGINEERING DEPARTMENT.

Special Service Pay Roll (November and December, 1899)		$ 450 00

GENERAL ACCOUNT.

Trustees' Pay Roll (December, 1899)		$ 2,333 33

CONSTRUCTION ACCOUNT.

Griffiths & McDermott (By-pass)	$ 2,080 27	
Gahan & Byrne (Sec. 18)	13,050 62	
Gahan & Byrne (Sec. 18)	429 75	
Gahan & Byrne (Sec. 18)	4,932 80	

Gahan & Byrne (Sec. 18)	$ 1,532 88	
Gahan & Byrne (Sec. 18)	2,126 82	
The J. G. Wagner Company (Jefferson Street Bridge)	1,722 88	
Chicago Junction Railway Company (sundries)	65 35	
Chicago Junction Railway Company (sundries)	118 95	
C. T. T. R. R. Co. (sundries)	90 48	
C. T. T. R. R. Co. (sundries)	146 95	
The A., T. & S. F. Ry. Co. (sundries)	13 14	
The A., T. & S. F. Ry. Co. (sundries)	46 01	
The Belt Railway Company of Chicago (sundries)	51 09	
The Joliet Bridge and Iron Company (Sec. 18)	160 60	
The Union Switch and Signal Company (Sec. O—P. H. Bridge)	281 82	
Economy Light and Power Company (sundries)	321 86	
City of Chicago (sundries)	20 00	
Isham Randolph (sundries)	50 00	
Hayes Bros. (sundries)	55 80	
Highway Commissioners (Town of Lockport)	1,250 00	
The Canal Commissioners (crib work)	104 00	
James A. Sackley (subway, Lemont)	2,248 46	
Joseph F. Haas, Clerk (loading stone)	495 50	
Joseph F. Haas, Clerk (concreting clay pockets)	1,229 13	
		$32,624 66
Grand total		$35,407 99

* To be paid by warrants, with interest coupons attached, drawn against the Tax Levy for 1899.

Mr. Kelly, seconded by Mr. Wenter, moved that the vouchers, as read and shown above, be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Jones, Kelly, Mallette Smyth (*except as to voucher in favor of Hayes Bros. for $55.80 on which he voted nay*) and Wenter—seven (*except as above stated*). Nays—none (*except as above stated*).

Upon this result the President declared the motion carried.

MONTHLY REPORT FROM ENGINEERING DEPARTMENT.

The Clerk presented a report from the Engineering Department for the month of November, 1899, which, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, Dec. 23, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I herewith submit the report of the Engineering Department for the month of November, 1899, giving the detailed operations of its several divisions.

The value of the construction work done was $387,360.18, divided as follows: Main Channel, $194,484.18; bridges, $190,266.00; general, $2,610.00. The engineering expenses were $14,388.48, divided as follows: Salaries, $12,174.60; supplies, etc., $2,213.88.

Division of Construction.

The weather conditions for the month were very favorable to good progress by the contractors. The temperature varied between 26 and 60 degrees Fahrenheit.

Chicago River—The water was let into the Adams Street section of the By-pass on the 1st of November. Work was continued on the Jackson Street end throughout the month and very good progress was made. Considerable trouble was caused by the Metropolitan water tunnel on account of leaks, requiring a great deal of extra pumping. Considerable extra work was done, such as repairs to freight houses, roadways, moving railroad tracks, removing old timbers, placing of concrete struts between the walls, and moving the C. & A. R. R. freight office force. On the regular work the contractors took out 2,900 cubic yards of excavation, placed 970 cubic yards of concrete, used 150,000 feet, B. M., of tim-

ber, and sunk 844 lineal feet of piles. Seven hundred and nineteen thousand feet, B. M., of old timber were removed and taken to the Robey Street slip. The contractors for the substructure employed a daily average of 134 men, working days, nights and Sundays.

The contractors for the superstructure of the By-pass put 9 girders in place and 918 cubic yards of concrete in the concrete arches between the girders. Seventy-five per cent of this work was completed up to December 1st, 30 per cent of which was done during November. A daily average of 50 men were employed on this branch of the work during the month.

The contractors for the dredging of the river removed 56,200 cubic yards of material, which was deposited in the Lake Front.

On the contract for the Van Buren Street approach span over the By-pass, the old masonry sidewalks are taken out and 800 cubic yards of material were excavated.

At the Taylor Street Highway Bridge both main abutments were finished, the coffer-dam was completed, and some excavation was done for the west piers.

At the C. T. T. R. R. Co.'s Bridge, near Taylor Street, 289 foundation piles are driven in the west abutment. In the east abutment one-half of the coffer-dam is built and some excavation done.

Section "O"—The excavation of the Main Channel at the west end of the section was continued all month with scraper force and the steam shovel incline plant, which has worked over from Section "N". Twelve thousand six hundred and thirty cubic yards of materials were removed during the month.

The dredge, in connection with the work on the collateral channel, continued loading scows to the 9th, and from that date the excavated material was swung ashore by a derrick. The plant began night operations on the 13th. Ten thousand six hundred and ninety-seven cubic yards of material were removed during the month. On the 10th work was begun on the construction of a flume through the unfinished portion of the collateral channel. This work was pushed night and day and nearly completed at the end of the month.

The reconstruction of the Pan Handle temporary trestles was continued. The two trestles used by the P. C. C. & St. L. Ry. Co. were finished, and further work delayed on account of inability to gain possession of trestle used by the C. T. T. R. R. Co. The filling in of dam across the Main Channel east of the trestles was continued to the 20th, when same was considered safe. The coffer-dams were removed and excavation under the trestles was continued to the end of the month at which time the work under the west trestle was practically finished, and work under the east trestle carried as far as possible, pending the completion of the reconstruction of said trestle.

Work on the substructure of the Eight-track Bridge was continued to the end of the month, at which time the north abutment was completed. The concrete foundation for the south abutment was finished on the 4th, stone laying was started on the 15th and continued to the 30th, when all the stone, with the exception of four courses, was in place. Concreting on the north pier was begun on the 4th and completed on the 25th, and the laying of stone for the same was begun on the 29th. At the south pier, concreting was finished on the 26th. The quantities vouchered for the month on this account were as follows: Excavation, 7,270 cubic yards; piles removed, 1,700 lineal feet; Portland cement concrete, 8,910 cubic yards; masonry, 270 cubic yards. The cement furnished the contractors amounted to 8,860 barrels.

Section "N"—Owing to a number of breakdowns, the shovel and incline plant on the east end of this section lost about one-half of the month; 9,421 cubic yards of material were removed by this outfit before the dividing line of Sections "N" and "O" was crossed. Excavation under Kedzie Avenue was continued all month, at a cost of $4,879.77. The shovel and incline plant west of Kedzie Avenue worked all month, removing 19,582 cubic yards of material, 1,897 cubic yards of which will appear in December vouchers. On the 14th, a scraper force began removing the bank on the bottom of the Channel near the west end of the section, and continued work with interruptions to the end of the month.

On the 27th, a force of laborers started trimming down the slope in front of the south abutment of the bridge of the new Santa Fe Railway Company's Twenty-sixth Street line, preparatory to the rip-rapping of same. A track gang worked three days on the new Santa Fe tracks.

A large force of trackmen worked the

entire month ballasting the new C. M. & N. R. R. Co.'s tracks.

Section "K"—Excavation of the Main Channel, under the Belt Company's old right of way, was continued throughout the entire month; 2,171 cubic yards of material were removed.

The construction of the new temporary trestle for the Belt Railway Company was begun on the 6th and continued to the end of the month, when same was finished up to twenty-two feet opening.

Work on the substructure of the Belt Company's permanent bridge was continued all month, night shifts being worked after the 21st. Concreting for the foundation of the south abutment was started on the 23d, and for the center pier on the 30th. The following quantities were vouchered during the month on this account: Excavation, 1,700 cubic yards; Portland cement concrete, 246 cubic yards.

Sections "H" and "G"—The work of excavating these sections was completed on the 14th. The removal of the plant was nearly complete at the end of the month.

Section "E"—The C. T. T. R. R. Co.'s bridge over the Desplaines River was completed on the 18th.

Section 3—A small force was engaged during the month in excavating for the unfinished wall on this section, placing masonry and backfilling same. The work was nearly finished at the end of the month.

Section 8—The work of excavating the Main Channel continued during the month and was prosecuted vigorously. A force of seventy to ninety men were engaged daily. One revolving and one guy derrick, two incline hoists and three drills were in use. Toward the end of the month it was found necessary to construct a coffer-dam at this point to prevent the encroachment of water upon the work, and a force of twenty laborers and teams were engaged in the construction of same. But little work remained to be done at the end of the month. A voucher for 5,000 cubic yards of solid rock was rendered.

Work on the Stephens Street subway and collateral thereto was carried on during the greater part of the month. The daily force employed varied from about fifty during the early part to eighteen or twenty during the latter part of the month. The bulk of the work done was on the subway road, the abutments having been completed the latter part of October. No work was done after the 21st, owing to circumstances and the injunction served last month. The following quantities were vouchered on this account: Subway excavation, 1,300 cubic yards; grading road to Santa Fe station, 1,000 cubic yards; concrete, 450 cubic yards; excavation west approach bridge, 200 cubic yards.

The Santa Fe company, with a gang of about seventy men, was engaged during the month in raising its tracks, depot and yards, necessitated by changes in its line.

Sections 12 and 13—The work of concreting clay pockets was carried on during the month. Concrete was placed in pockets on Section 12 that had been previously excavated and excavation was begun on Section 13. At the close of the month only a small amount of work remained to be done on Section 12, and on Section 13 four large pockets had been excavated and work was in progress on five others. The force employed was as follows: A daily average of sixty men; four derricks; teams, etc. The total amount of concrete laid to December 1st was about 2,600 cubic yards.

Section 14—But one pump was run during the month. The elevation of water on November 30th was—29.5 C. C. D., being three-tenths above grade.

Section 16—A force of about eighty men and eighteen teams was engaged daily on this section. Work on the open ditch began on October 31st. A small amount of work remained to be done on the Tail Race at the end of the month. Channeling was carried on during the month, a part of the time in double shifts. Tail Race work was carried on same as previously.

The grading of the Wire Mills Road was continued throughout the month, a small amount remaining unfinished at its close. The following quantities were vouchered on this account: Broken stone, 525 cubic yards; gravel, 970 cubic yards; excavation, 6,050 cubic yards.

Section 17—Work on this section was carried on without interruption during the month, with a force varying from 370 to 400 men daily. The distribution of this force was as follows: Tail Race, 100; new river channel, 200; and the balance in the Upper Basin on the Towpath and in miscellaneous work. The machinery used in the new river chan-

nel and the Upper Basin work consisted of one steam shovel, two derricks, one steam hoist, one dredge, one mud pump and scows. The machinery used in the Tail Race work consisted of two derricks, one locomotive, one incline hoist and numerous five-yard and one-yard dump cars. The temporary bridge across the new river channel was under construction the latter part of the month. The south abutment and one pier of the Tow-path Bridge was completed and excavation begun for north abutment and pier. The following quantities were vouchered on this section: Solid rock, 12,000 cubic yards; earth, 6,600 cubic yards; Tail Race excavation, 7,200 cubic yards; concrete for bridge and wall, 452 cubic yards.

Section 18—The work of removing the condemned portion of Dam No. 1 was continued from the 1st to the 21st, and concreting of same was carried on from the 22d to the 25th. The work of scraping joints in the tunnel was carried on from the 1st to the 12th, and from the 21st to the end of the month. Work on the Tail Race was carried on throughout the month, with exceptions, with the following plant: Two derricks, one hoist engine for cars, one boiler, two channelers and two steam drills. Concrete was placed from the 1st to the 20th, and 622 feet of finished wall were built. The wall work is completed, with the exception of the opening for the flume and the connection of the north end with the protection wall at the south end of conduit. On the Main Channel work, the entire car plant was confined to the work north of Cass Street up to the 22d, when the plant was moved south of Cass Street, and continued work at that point for the balance of the month. The excavation of the Channel immediately south of Jackson Street was carried on throughout the entire month. The plant for the Main Channel work consisted of three boilers, one derrick, four steam drills and one small steam pump. The work of excavating the east approach to the Cass Street Bridge began on the 7th and continued throughout the balance of the month. The material removed from the Main Channel, and the excavation of the old Jefferson Street Bridge was placed in the levee south of McDonough Street and north of the Rock Island Railroad, and in the Illinois and Michigan Canal rip-rap work.

The work of repairing Jackson Street Bridge was carried on from the 1st to the 6th, when the bridge was opened to traffic. Work on the piers and abutments was continued to the 24th.

Concrete was placed in the abutment of the C., R. I. & P. R. R. Co.'s bridge from the 8th to the 11th, at which latter date it was completed, with the exception of a few yards of concrete to be placed when the temporary bridge is removed.

The excavation and building of the coffer-dam for the new pier at the Jefferson Street Bridge was carried on from the 1st to the 20th. The water was taken care of with the use of two steam pumps and one boiler. Concrete was placed from the 20th to the 27th, when pier was finished with the exception of the coping stone. The excavation for the west abutment was continued from the 1st to the 17th and from the 24th to the 28th. Concreting for this abutment began on the 28th and continued to the end of the month. The work of excavating the old Jefferson Street Bridge was carried on at intervals during the month with a plant of one derrick and six cars.

Concrete was placed in the new piers for the Cass Street Bridge from the 13th to the 15th, when piers were finished with the exception of the coping stone. On the 16th the contractors for the superstructure of this bridge began excavation for mud-sills and the erection of the false work, and continued the balance of the month. This bridge was closed to traffic on the 10th at 12 M.

The work of excavating for the open ditch south of Jackson Street began on the 4th and water was diverted into it on the 22d. The work of building the gate and flume at Dam No. 1 was begun on the 16th and continued during the balance of the month. The State dredge arrived on the 21st and began preparations for the excavation in the Illinois and Michigan Canal south of Jefferson Street. The work of excavating for, and building, Tail Race crib was begun on the 23d and continued the balance of the month.

The average number of men employed on the entire section during the month was 414, and the average number of teams 18. About 89 per cent of the entire work on this section was completed.

Division of Drafting and Designing.

The regular platting was continued on the contour maps between Lockport and Willow Springs; the 50-feet scale maps of the Chicago River, and the atlas of the right of way. The following drawings were made: Map showing location

of Norton's Dam for paper mills at Lockport; copy of Ferguson's profile of the I. & M. Canal from Bridgeport to Lockport; and a diagram showing area and velocity of the Chicago River.

In the Bridge Department office the greater part of the time was spent on the plans for the Bear Trap Dam Bridge. Some time was also spent on plans for the Belt Railway Company's temporary bridge over the Main Channel on Section "K".

The work of this branch of the office force, exclusive of the Bridge and Drafting Departments, was a continuation of its previous work.

Division of Records.

The work of this division has been carried on in the usual manner.

I estimate the expenses of this Department for the month of December will be $300,000.00.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,

Chief Engineer."

Tabulated Statements of Expenditures, Values and Quantities, Engineering Department.

SANITARY DISTRICT OF CHICAGO—ENGINEERING DEPARTMENT.

CLASSIFIED STATEMENT OF EXPENDITURES DURING THE MONTH OF NOVEMBER, 1899.

Classification.	Engineering Expenses.			Construction.
	Salaries.	Supplies, Etc.	Total.	
Borings and Test Pits	.....	$ 415 00	$ 415 00	.....
Maps and Plans for General Use	$ 241 95	37 31	279 26	.....
Chicago River Survey	47 85	1 89	49 74	.....
Chicago River Improvement	2,923 80	153 70	3,077 50	$84,372 92
Right of Way	229 20	09	229 29	.....
Flood Measurements	5 00	10 00	15 00	.....
Disposal Works and Joliet Project	2,492 94	839 41	3,332 35	72,266 90
Regular Construction—Main Channel and River Diversion	512 06	205 62	717 68	119,602 81
Wire Mills Road Permanent Bridge and Roadway, Sec. 16	.....	.....	.....	1,765 96
A., T. & S. Fe Ry. Co.'s Per. Bridge, Main Channel, and track deviation and Stephen St. subway, Sec. 8	461 50	19 71	481 21	9,583 04
C. T. T. R. R. Co.'s Temporary Bridge, Desplaines River, Sec. E	30 00	.....	30 00	98 84
C. T. T. R. R. Co.'s Permanent Bridge, Desplaines River, Sec. E	78 00	20 40	98 40	4,059 96
Belt Railway of Chicago's Temporary Bridge, Main Channel, Sec. K	255 00	8 79	263 79	1,553 38
Belt Railway of Chicago's Permanent Bridge, Main Channel, Sec. K	470 00	15 08	485 08	55,016 52
Pumping Plant, Sec. M	20 00	.....	20 00	115 25
A., T. & S. Fe Ry. Co.'s Permanent Bridge, Main Channel and track deviation, Sec. N	10 00	.....	10 00	86 06
C., M. & N. R. R. Co.'s Permanent Bridges, M. C. and Kedzie Avenue and track deviation, Sec. N	90 00	.....	90 00	2,110 94
Panhandle Temporary Bridges, Main Channel, Sec. O	325 00	.....	325 00	1,189 69
Panhandle Permanent Bridge, Main Channel, Sec. O	1,350 00	182 87	1,532 87	81,635 49
Canal Street Bridge, Chicago River	20 00	70	20 70	.....
Taylor Street Bridge, Chicago River	335 50	2 70	338 20	3,142 43
C. T. T. R. R. Co.'s Bridge, Chicago River	334 50	2 70	337 20	6,571 35

Canal Street Bridge, Chicago River	320 50	8 70	328 20	8,149 43
Taylor Street Bridge, Chicago River	884 80	8 70	893 80	6,871 85
C., R. I. & P. R. R. Co.'s Bridge, Chicago River				
Van Buren Street Approach Span, Chicago River	175 00	.....	175 00	2,350 45
Bear Trap Dam Permanent Bridge, Sec. 15	85 00	88 50	123 50	.....
Tow Path Permanent Bridge, Sec. 17	130 00	.....	130 00	3,925 95
Jefferson Street Temporary Bridge, Sec. 18	.....	.....	.....	1,349 49
Jefferson Street Permanent Bridge, Sec. 18	455 00	6 50	461 50	8,187 81
Cass Street Permanent Bridge, Sec. 18	180 00	21 18	201 18	497 00
C., R. I. & P. R. R. Co.'s Permanent Bridge, Sec. 18	55 00	.....	55 00	.....
Moving and Repairing Bridges	.....	.....	.....	984 93
Mortar, Sand and Cement Tests	712 30	138 50	850 80	.....
Photographs of Works	150 00	92 83	242 83	.....
Relief Map for Paris Exposition	.....	40	40	.....
Totals	$12,174 60	$2,213 88	$14,388 48	$ 456,245 29

VALUES— STATEMENT SHOWING CONDITION OF

Designation.	Amount earned during Nov., 1899. Main Channel.	Bridges.	General.	Total.	Amount earned to date. Main Channel.	River Diversion.	Bridges.	General.
Chicago River	$68,149 24			$68,149 24	$ 568,306 19			
Section O	14,981 69	$ 1,232 19		16,213 88	411,322 40		$ 109,007 71	
" N	9,239 62			9,239 62	257,501 66		3,600 69	
" M	115 25			115 25	161,587 06			
" L					217,287 06			
" K	1,194 05	1,553 38		2,747 43	304,324 62		9,748 40	
" I					289,846 00			
" H	9,607 03			9,607 03	326,965 66			
" G	1,811 04			1,811 04	400,449 44			
" F					341,404 40	$ 75,627 73		
" E	29 58	98 84		128 42	753,454 95	29,091 91	15,874 54	$ 260 00
" D					502,089 29	2,880 54		
" C					443,342 59	40,135 18		781 63
" B					438,986 42	59,451 34		150 00
" A					801,584 08	115,741 73		
" 1					1,210,660 37	143,908 29	1,912 00	30 00
" 2					377,695 00	63,190 86		90 00
" 3					840,952 98	338 42		
" 4					975,248 98	83,304 43		85 25
" 5					749,207 28	6,653 64		
" 6					689,104 96	55,911 37		
" 7					722,544 74	66,193 19		8,758 00
" 8	5,625 00			5,625 00	904,616 80	89,663 90	19,853 89	2,580 06
" 9					794,338 28	23,573 72	1,012 30	
" 10					921,454 79	78,729 56		8,933 33
" 11					797,717 50	43,354 42		
" 12	2,315 47			2,315 47	852,084 38	21,768 52	1,086 87	
" 13	997 01			997 01	820,385 20			
" 14					931,457 10			
" 15					551,915 85	117 61		
" 16	2,359 50			2,359 50	72,798 27		1,500 00	
" 17	20,794 66			20,794 66	372,817 66			
" 18	57,265 04	1,349 49		58,614 53	341,027 00		16,098 68	
Disposal Wks. at Lockp't					263,010 37			
Repairing I. & M. Canal								18,052 85
Van Buren St. Approach Span, Chicago River		2,686 23		2,686 23			6,736 23	
Taylor St. Bridge, Chicago River		3,591 35		3,591 35			33,013 08	
C. T. T. R. R. Co.'s Br. Chicago River		7,510 11		7,510 11			87,394 37	
S. W. Blvd. Bridge, M. C., Sec. O							149,962 42	
Eight-Track Bridge, M. C., Sec. O		88,916 12		88,916 12			303,052 55	
C., M. & N. R. R. Co.'s Br., M. C., Sec. N		—2,110 94		—2,110 94			168,869 80	
C., M. & N. R. R. Co.'s Br., Kedzie Av., Sec. N							14,515 47	
Kedzie Av. Bridge, M. C., Sec. N							43,118 58	
A., T. & S. F. Ry. Co.'s Br., M. C., Sec. N		86 06		86 06			80,591 99	
Belt Ry. of Chicago Br., M. C., Sec. K		55,304 60		55,304 60			57,351 10	
A., T. & S. F. Ry. Co.'s Br., M. C., Sec. G							114,305 72	
A., T. & S. F. Ry. Co.'s Br., D. R., Sec. F							19,210 73	
Lyons-Summit Road Br., D. R., Sec. E							13,230 47	
Lyons-Summit Road Br., M. C., Sec. F							41,193 18	
C. T. T. R. R. Co.'s Br., M. C., Sec. E							50,652 75	
C. T. T. R. R. Co.'s Br., D. R., Sec. E		3,122 05		3,122 05			15,107 25	
Willow Spgs. Highway Br., M. C., Sec. 1							22,968 52	
A., T. & S. F. Ry. Co.'s Bridge, M. C. and Stephen St. Subway, Sec. 8		10,556 79		10,556 79			135,084 00	
A., T. & S. F. Ry. Co.'s Br., D. R., Sec. 8							23,275 07	
Lemont Highway Br., M. C., Sec. 8							21,227 39	

CONSTRUCTION CONTRACTS, DECEMBER 1, 1899.

Total.	Amount Paid to Date.	Remaining to be Earned.			Remaining to be Paid on Vouchers.		
		Main Channel.	Bridges.	Total.	Retained Percentages.	Unpaid Vouchers.	Total.
$ 568,303 19	$ 521,961 34	$ 156,384 68	.....	$ 156,384 68	$ 19,292 18	$ 27,049 67	$ 46,341 85
520,330 11	497,738 94	58,304 85	$ 13,000 00	71,304 85	12,222 81	10,368 36	22,591 17
261,102 35	247,187 51	9,353 18	.....	9,353 18	11,025 29	2,889 55	13,914 84
161,587 06	161,587 06	.....	.....	.....	.....	.....	.....
217,287 06	217,287 06	.....	.....	.....	.....	.....	.....
314,073 02	309,637 83	6,600 00	6,000 00	12,600 00	2,437 68	1,997 51	4,435 19
289,846 00	289,846 00	.....	.....	.....	.....	.....	.....
326,265 66	316,658 63	7,712 40	.....	7,712 40	.....	9,607 03	9,607 03
400,449 44	398,638 40	2,314 48	.....	2,314 48	.....	1,811 04	1,811 04
417,082 13	375,082 00	3,637 94	.....	3,637 94	34,103 38	7,846 75	41,950 13
798,681 40	693,715 70	.....	.....	.....	19,417 78	85,547 92	104,965 70
594,919 83	594,919 83	.....	.....	.....	.....	.....	.....
484,259 40	484,259 40	.....	.....	.....	.....	.....	.....
498,587 76	498,587 76	.....	.....	.....	.....	.....	.....
917,325 81	917,325 81	.....	.....	.....	.....	.....	.....
1,356,510 66	1,349,616 00	.....	.....	.....	6,179 83	715 83	6,895 66
940,975 86	940,975 86	.....	.....	.....	.....	.....	.....
841,291 35	841,291 35	1,310 00	.....	1,310 00	.....	.....	.....
1,058,638 66	1,058,638 66	450 00	.....	450 00	.....	.....	.....
755,860 92	755,860 92	.....	.....	.....	.....	.....	.....
745,016 33	745,016 33	.....	.....	.....	.....	.....	.....
797,495 93	797,495 93	.....	.....	.....	.....	.....	.....
1,016,734 65	1,009,565 60	.....	.....	.....	2,247 18	4,921 87	7,169 05
819,424 30	819,424 30	.....	.....	.....	.....	.....	.....
1,009,136 70	1,009,136 70	.....	.....	.....	.....	.....	.....
841,571 92	841,571 92	.....	.....	.....	.....	.....	.....
874,989 77	874,720 07	2,211 15	.....	2,211 15	.....	219 70	219 70
820,385 20	820,385 20	3,882 89	.....	3,882 89	.....	.....	.....
931,457 10	931,457 10	1,600 00	.....	1,600 00	.....	.....	.....
552,033 46	552,033 46	.....	.....	.....	.....	.....	.....
74,298 27	63,375 83	2,370 25	.....	2,370 25	8,857 88	2,064 56	10,922 44
372,817 66	335,859 38	81,004 44	.....	81,004 44	27,180 15	9,778 13	36,958 28
357,125 68	287,999 31	44,694 00	.....	44,694 00	40,402 91	28,723 46	69,126 37
268,010 37	268,010 37	150 00	.....	150 00	.....	.....	.....
18,052 85	18,052 85	.....	.....	.....	.....	.....	.....
6,786 23	4,050 00	.....	17,505 87	17,505 87	335 78	2,350 45	2,686 23
33,013 08	27,327 35	.....	48,027 04	48,027 04	2,548 30	3,142 43	5,685 73
87,394 37	78,809 03	.....	284,990 70	284,990 70	2,013 99	6,571 35	8,585 34
149,962 42	145,734 20	.....	.....	.....	4,228 22	.....	4,228 22
303,052 55	231,617 67	.....	385,228 95	385,228 95	18,088 51	53,346 37	71,434 88
168,869 80	168,869 80	.....	12,000 00	12,000 00	.....	.....	.....
14,515 47	14,515 47	.....	.....	.....	.....	.....	.....
43,118 58	43,118 58	.....	5,400 00	5,400 00	.....	.....	.....
80,591 99	80,591 99	.....	2,000 00	2,000 00	.....	.....	.....
57,251 10	54,998 50	.....	156,070 00	156,070 00	531 39	1,721 21	2,252 60
114,305 72	114,305 72	.....	.....	.....	.....	.....	.....
19,210 73	19,210 73	.....	.....	.....	.....	.....	.....
13,220 47	13,220 47	.....	.....	.....	.....	.....	.....
41,193 18	41,193 18	.....	.....	.....	.....	.....	.....
50,682 75	50,682 75	.....	.....	.....	.....	.....	.....
15,107 25	13,974 49	.....	2,000 00	2,000 00	.....	1,132 76	1,132 76
22,968 52	22,968 52	.....	.....	.....	.....	.....	.....
135,064 00	92,506 05	.....	6,445 00	6,445 00	23,858 39	18,669 56	42,527 95
23,275 07	23,275 07	.....	.....	.....	.....	.....	.....
21,227 39	21,227 39	.....	.....	.....	.....	.....	.....

VALUES— STATEMENT SHOWING CONDITION OI

Designation.	Amount earned during Nov., 1899.				Amount earned to date.			
	Main Channel.	Bridges.	General.	Total.	Main Channel.	River Diversion.	Bridges.	General
Lemont Highway Br., D. R., Sec. 8	.....	.....	.....	.....	.....	.....	$ 22,329 89	.....
Western Stone Co.'s Br., D. R., Sec. 10	.....	.....	.....	.....	.....	.....	15,983 63	.....
Romeo Highway Br., M. C., Sec. 12	.....	.....	.....	.....	.....	.....	30,085 23	.....
Lockport Highway Br., M. C., Sec. 16	.....	.....	.....	.....	.....	.....	16,943 08	.....
Wire Mills Rd. Br., Sec. 16	.....	$ 2,018 25	.....	$ 2,018 25	.....	.....	19,447 76	.....
E., J. & E. R. R. Co.'s Br., bet. Secs. 16 and 17	.....	.....	.....	.....	.....	.....	41,984 62	.....
Towpath Bridge, Sec. 17	.....	4,425 98	.....	4,425 98	.....	.....	4,613 77	.....
Cass St. Bridge, Sec. 18	.....	568 00	.....	568 00	.....	.....	568 00	.....
Jefferson St. Bridge, Sec. 18	.....	9,357 50	.....	9,357 50	.....	.....	14,375 00	.....
C. R. I. & P. R. R. Co.'s Bridge, Sec. 18	.....	.....	.....	.....	.....	.....	11,810 00	.....
Crib work at Joliet	.....	.....	$2,610 00	2,610 00	.....	.....	.....	$37,337
Totals	$194,484 18	$190,266 00	$2,610 00	$387,360 18	$ 19,997,236 28	$1,000,156 38	$1,738,566 73	$77,077

CONSTRUCTION CONTRACTS. DECEMBER 1, 1899—*Continued*.

Total.	Amount Paid to Date.	REMAINING TO BE EARNED.			REMAINING TO BE PAID ON VOUCHERS.		
		Main Channel.	Bridges.	Total.	Retained Percentages.	Unpaid Vouchers.	Total.
$ 22,329 89	$ 22,329 89	.....	.....	.....	.....	.....	.....
15,983 63	15,983 63	.....	.....	.....	.....	.....	.....
30,085,23	30,085 23	.....	.....	.....	.....	.....	.....
16,943 08	16,748 16	.....	.....	.....	$ 194 92	.....	$ 194 92
19,447 76	17,104 67	.....	.....	.....	577 13	$ 1,765 96	2,343 09
41,984 62	41,984 62	.....	.....	.....	.....	.....	.....
4,613 77	613 57	.....	$ 24,640 87	$ 24,640 87	500 03	3,500 17	4,000 20
568 00	.....	.....	37,697 75	37,697 75	71 00	497 00	568 00
14,375 00	6,866 56	.....	31,252 25	31,252 25	1,796 88	5,711 56	7,508 44
11,810 00	10,333 75	.....	24,798 00	24,798 00	1,476 25	.....	1,476 25
37,337 56	37,337 56	.....	.....	.....	.....	.....	.....
$ 22,833,037 07	$ 22,301,504 01	$381,980 26	$1,057,056 43	$1,439,036 69	$239,582 86	$291,950 20	$531,533 06

QUANTITIES— STATEMENT SHOWING CONDITION OF CON

DESIGNATION.	AMOUNT DONE DURING NOVEMBER, 1899. Main Channel. Glacial Drift. Cu. Yds	Solid Rock. Cu. Yds	Mas'y & Conc'r't Cu. Yds	Piles Lineal Feet.	TOTAL DONE TO Main Channel. Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds.	Retaining Wall. Cu. Yds.
Chicago River Improvement	59,100		970	844	1,035,100		
Section O	30,597				1,747,183		
" N	27,106				1,045,824		
" M					730,573		
" L					1,102,980		
" K	2,171				1,179,502		
" I					1,159,384		
" H	19,507				1,105,749		
" G	5,594				1,400,782		
" F					1,093,047	37,448	
" E	94	6			1,907,456	212,675	
" D					1,934,890	87,080	
" C					1,881,545		
" B					1,579,036	15,586	
" A					2,560,648	13,212	
" 1					1,282,267	554,386	68,356
" 2					724,905	483,750	38,506
" 3					425,705	760,778	14,089
" 4					1,096,746	262,428	68,169
" 5					952,526	378,609	56,059.1
" 6					683,248	549,355	30,361.7
" 7					181,721	890,989	6,179.9
" 8		5,000			50,170	1,159,652.1	2,874.9
" 9					76,692	1,003,769	
" 10					31,743	1,141,890	
" 11					44,021	989,711	
" 12					44,030	998,709	9,286.94
" 13					33,810	1,033,665	10,838
" 14					380,165	1,022,796	23,567.8
" 15					35,324	647,089	44,811.2
" 16	2,016	4,034			30,599	151,101	
" 17	6,600	19,200			217,300	347,100	1,500
" 18	8,000	22,000			111,350	113,400	6,300
Disposal Works at Lockport						10,111	
Van Buren Street App. Span, Chicago River	800				800		
Taylor Street Bridge, Chicago River	200		50	1,155	2,250		
C. T. T. R. R. Co.'s Bridge, Chicago River	2,800			5,960	9,600		
Southwest Boulevard Bridge, Main Channel, Sec. O					9,873.5		
Eight Track Bridge, Main Channel, Sec. O			9,180		11,000		
C., M. & N. R. R. Co.'s Bridge, Main Channel, Sec. N					17,849		
C., M. & N. R. R. Co.'s Bridge, Kedzie Avenue, Sec. N					2,869		
Kedzie Avenue Bridge, Main Channel, Sec. N					7,101		
A., T. & S. F. Ry. Co.'s Bridge, Main Channel, Sec. N					7,445		
Belt Railway Co. of Chicago's Bridge, Main Channel, Sec. K	1,700		246		3,750		
A., T. & S. F. Ry. Co.'s Bridge, Main Channel, Sec. G					85,258		
Lyons-Summit Road Bridge, Desplaines River, Sec. E							
Lyons-Summit Road Bridge, Main Channel, Sec. F					2,270		
C., T. T. R. R. Co.'s Bridge, Main Channel, Sec. E					4,748.1		
C., T. T. R. R. Co.'s Bridge, Desplaines River, Sec. E	*433						
Willow Springs Road Bridge, Main Channel, Sec. 1					2,084		
A., T. & S. F. Ry. Co.'s Bridge, M. C. and Stephens St. subway, Sec. 8	1,000	1,500	450		99,315	6,630	
Lemont Road Bridge, Main Channel, Sec. 8					2,006	202	
Romeo Road Bridge, Main Channel, Sec. 12					1,170	2,454	
Lockport Road Bridge, Main Channel Section 16						526	

STRUCTION CONTRACTS DECEMBER 1, 1899.

DATE.				ESTIMATED REMAINING TO BE DONE.				PERCENTAGE COMPLETED.				
River Diversion.		Piles. Lineal Feet.	Masonry and Concr't. Cu. Yds.	*Main Channel.*				Main Channel Excava'n	River Divers'n.	Ret. Wall	Masonry and Concr't	Piles.
Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds.			Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds	Piles Lin. Ft.	Mas'y & Concr't Cu. Yds					
.....	.....	74,144	9,103	1,500	.....	14,480	1,325	99.8	.....	....	87.3	83.7
.....	.....	.....	.....	120,702	.....	.....	.....	93.6	.....	....	.....	.....
.....	.....	.....	.....	40,666	.....	.....	.....	96.8	.....	....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	...	.....	.....
.....	.....	.....	.....	12,000	.....	.....	.....	98.9	.....	....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	....	.....	.....
179,447	.....	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
95,718	.....	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	....	.....	.....
170,788	.....	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
212,486	.....	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
359,353	.....	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
174,655	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
119,234	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
.....	.....	.....	.....	.....	140	.....	‡200	99.9	.....	98.6	.....	.....
106,803	17,857	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
12,256	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
118,647	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
97,917	43,102	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
57,902	99,399	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
40,768	16,873	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
30,313	58,276	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
12,699	15,677	.....	.....	.....	.....	.....	.....	100	100	....	.....	.....
11,739	7,475	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	100	.....	....	.....	.....
.....	.....	.....	.....	.....	.....	.....	‡200	100	.....	99.1	.....	.....
619	.....	.....	.....	.....	.....	.....	.....	100	100	100	.....	.....
.....	.....	.....	.....	.....	2,916	.....	.....	99.6	.....	....	.....	.....
.....	.....	.....	.....	70,170	37,560	.....	‡3,155	83.9	.....	82.2	.....	.....
.....	.....	.....	3,993	27,000	16,800	.....	†1,000	83.6	.....	96.9	83.3	.....
.....	.....	.....	11,454.1	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	.....	.....	3,151	.....	2,200	784	20.3	.....	....	00	00
.....	.....	5,440	716	1,000	.....	7,500	272	69.2	.....	....	72.5	42
.....	.....	7,206	.....	7,500	.....	24,100	8,800	56.1	.....	....	00	23
.....	.....	10,813	4,421.94	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	.....	11,446	.....	.....	29,600	2,914	100	.....	....	73.7	00
.....	.....	5,948	4,236.77	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	.....	595.69	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	.....	2,886.84	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	4,544	2,489.36	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	.....	246	4,850	.....	7,007	3,549	46.3	.....	....	.07	00
.....	.....	5,748	2,929.03	.....	.....	.....	.....	100	.....	....	100	100
5,924	.....	.....	793.3	.....	.....	.....	.....	.....	100	....	100	.....
.....	.....	1,501	2,087.2	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	1,166.5	2,162.79	.....	.....	.....	.....	100	.....	....	100	100
3,389	.....	.....	653.44	.....	.....	.....	.....	.....	100	....	100	.....
.....	.....	400	598.6	.....	.....	.....	.....	100	.....	....	100	100
.....	.....	.....	1,710.07	15,000	1,000	.....	.....	86.9	.....	....	100	.....
.....	.....	.....	433.36	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	.....	1,184.6	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	.....	449.45	.....	.....	.....	.....	100	.....	....	100	.....

QUANTITIES— STATEMENT SHOWING CONDITION OF CON

DESIGNATION.	AMOUNT DONE DURING NOVEMBER, 1899.				TOTAL DONE TO		
	Main Channel.			Piles Lineal Feet.	*Main Channel.*		
	Glacial Drift. Cu. Yds	Solid Rock. Cu. Yds	Mas'y& Conc'r't Cu. Yds		Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds.	Retaining Wall. Cu. Yds.
Wire Mills Road Bridge, Main Channel, Sec. 16	.....	.....	.....	.....	.....	608	.....
E., J. & E. R. R. Co.'s Bridge, between Secs. 16 and 17	.....	.....	.....	.....	.....	.....	.....
Towpath Bridge, Sec. 17	.....	.....	452	.....	.....	.....	.....
Cass Street Bridge. Sec. 18	85	20	76	.....	85	20	.....
Jefferson Street Bridge, Sec. 18	900	750	380	.....	4,120	750	.....
C., R. I. & P. Ry. Co.'s Bridge, Sec. 18	.....	.....	.....	.....	.....	1,300	.....
Totals	168,200	52,510	11,813	7,959	28,130,699.6	12,877,564.1	380,749.54

* River Diversion.
† 200 cu. yds. Retaining Wall.
‡ Retaining Wall.

STRUCTION CONTRACTS DECEMBER 1, 1899—*Continued.*

DATE.				ESTIMATED REMAINING TO BE DONE.				PERCENTAGE COMPLETED.				
River Diversion.		Piles. Lineal Feet.	Masonry and Concr't. Cu. Yds.	*Main Channel.*				Main Channel Excava'n	River Divers'n.	Ret. Wall	Masonry and Concr't	Piles.
Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds.			Glacial Drift. Cu. Yds.	Solid Rock. Cu. Yds	Piles Lin. Ft.	Mas'y & Concr't Cu. Yds					
.....	.....	.....	566.57	.....	.....	.....	.....	100	.....	....	100	.....
.....	.....	.....	1,041.84	.....	.....	.....	.....	.....	.....	....	100	.....
.....	.....	.....	452	.....	.....	.....	393	.....	.....	....	53.5	.....
.....	.....	.....	76	250	110	.....	620	29.1	.....	....	10.9	.....
.....	.....	.....	380	150	2,005	.....	862	69.3	.....	....	30.5	.....
.....	.....	.....	1,070	.....	.....	.....	256	100	.....	....	80.6	.....
1,810,652	258,659	116,910.5	68,126.95	303,439	60,531	84,887	20,575	99.1	100	99	76.1	57.9

REPORT IN REFERENCE TO COMPLETION OF CONTRACT AS TO REMAINDER OF WORK ON SECTIONS K AND L.

The Clerk presented, and read, a report from the Chief Engineer, being final certificate with reference to the completion of the remainder of the work on the contract with Messrs. Christie & Lowe for work on Section K, and also unfinished excavation of accessible portion of Section L under verbal promise with said contractors; the report being accompanied by Engineer's voucher No. 57, in favor of Christie & Lowe, for the sum of $3,093.30.

Mr. Kelly, seconded by Mr. Mallette, moved that the report be received and that the President and Clerk be directed to pay to said contractors the sum of $3,093.30, the amount shown to be due on said accompanying voucher, upon the execution by said contractors of a proper receipt for same in the usual form as heretofore.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Jones, Kelly, Mallette, Smyth and Wenter—seven. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE FINAL CERTIFICATE OF THE CHIEF ENGINEER:

"December 27th, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN — I hereby certify that Christie & Lowe, contractors for Section K, under contract dated December 27th, 1893, have completed all of the unfinished excavation of said section and of the unfinished excavation of Section L to which they have had access in accordance with their verbal promise made at the time they received their final payment for work completed on Section K prior to the date of said payment, November 25th, 1896, and in accordance with the order of the Chief Engineer, dated August 4th, 1899, and the further order of the Committee on Engineering, passed September 20th, 1899, and the satisfaction of the Chief Engineer. This certificate is given subject to any unaccrued or unmatured liabilities or duties arising or growing out of said contract. The volume and value of work done is as per final estimate herewith submitted.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,
Chief Engineer."

(Accompanied by voucher for $3,093.30.)

REPORT IN REFERENCE TO PAYMENT FOR FORCE ACCOUNT WORK AT EIGHT-TRACK BRIDGE.

The Clerk presented, and read, a report from the Chief Engineer setting forth that Messrs. McArthur Bros. Company ask that provision be made for the payment of the men employed by them on force account work for the District at the Eight-Track Bridge, to the amount of about $12,000; the Chief Engineer asking that the Board authorize payment on the voucher of the Chief Engineer to meet this requirement, said voucher to be made by him as soon as the actual amount can be ascertained.

Mr. Kelly, seconded by Mr. Braden, moved that the report be received and the payment of said voucher as requested therein authorized.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Jones, Kelly, Mallette, Smyth and Wenter—seven. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, December 27, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I am advised by McArthur Brothers Company that the work at the Eight-track Bridge is so far advanced that it will be necessary for them to lay off the large number of men whom they have been employing on force account for this District, on Saturday or Monday next. They ask that provision be made for the payment of these men. The amount to be paid they state will be about $12,000.00. I ask that you authorize payment on the voucher of the Chief Engineer of a voucher to meet this requirement. Said voucher to be made by him as soon as he can ascertain the actual amount of the rolls.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,
Chief Engineer."

REPORT IN REFERENCE TO COMPLETION OF CONTRACT FOR SECTION E.

Mr. Smyth, Chairman, presented, and the Clerk read, a report from the Committee on Engineering with reference to, and accompanied by, the final certificate

of the Chief Engineer, and supplement thereto, in favor of Halvorson, Richards & Co., assignees of the contract for the excavation of Section E, the report being also accompanied by affidavit as to claim of Qualey Construction Company and also by list of claims referred to in said certificate and aggregating $11,621.93; and recommending that the Clerk of the District be directed to pay to said Halvorson, Richards & Co. the sum of $59,221.22 upon the execution of a receipt for same and waiver and release of all claims except as set forth in the report, and also recommending that the President and Clerk be directed to pay the respective amounts to the parties mentioned in the statement of claims aggregating the sum of $11,621.93, the same being for labor performed and material furnished to Angus & Gindele and used upon said Section E; all as set forth in the report.

Mr. Smyth, seconded by Mr. Jones, moved that the report be adopted and the recommendations contained therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Braden, Jones, Kelly, Mallette, Smyth and Wenter—seven. Nays—none.

Upon this result the President declared the motion carried.

The following is

THE REPORT:

"CHICAGO, December 27, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—The Committee on Engineering herewith presents the final certificate of the Chief Engineer of the Sanitary District, dated November 22, 1899, and the supplement thereto, dated December 23, 1899, in favor of Halvorson, Richards & Co., assignees of the contract for the excavation of Section "E" of the Main Drainage Channel, said contract being dated January 31, 1898. This contract was made with the firm of Angus & Gindele, and by their receiver assigned to Halvorson, Richards & Co. Your Committee has examined said certificate and considered the subject matter thereof. Said certificate shows a total balance earned on said contract, amounting to eighty-six thousand and eighty dollars and three cents ($86,080.03), subject to the following amounts which are to be deducted therefrom:

1. The sanitary District advanced upon said contract, while held by Angus & Gindele, twelve thousand nine hundred and seventy-eight dollars and twenty-four cents ($12,978.24), which is to be retained from said amount.

2. Eleven thousand six hundred and twenty-one dollars and ninety-three cents ($11,621.93) for labor performed for, and material furnished to, said Angus & Gindele and used upon said Section "E," as shown by the hereto attached statement of claims filed with the Clerk of the District by said Angus & Gindele and by them directed to be paid to the parties mentioned therein.

3. Two thousand two hundred and fifty-eight dollars and sixty-four cents ($2,258.64) paid by the Sanitary District of Chicago to Gahan & Byrne for work done on the Summit and Lyons highway.

Under the terms of said contract, the Sanitary District has the right to pay said amount of eleven thousand six hundred and twenty-one dollars and ninety-three cents ($11,621.93) to the parties entitled thereto, and there is no objection to paying the said amount either by said Angus & Gindele or by said Halvorson, Richards & Co.

Your Committee, therefore, recommends that the Clerk of the District be directed to pay to said Halvorson, Richards & Co. the sum of fifty-nine thousand two hundred and twenty-one dollars and twenty-two cents ($59,221.22) upon their executing a receipt for the same and a waiver and release of all claims against the District for work done upon said Section "E", except such claims for extras as are included in the statement of claims made by said Halvorson, Richards & Co. and now on file with the District, and except a claim for two thousand two hundred and fifty-eight dollars and sixty-four cents ($2,258.64) paid by said Sanitary District to Gahan & Byrne for work done on the Summit and Lyons highway.

Your Committee further recommends that the President and Clerk of the District be directed to pay the respective amounts to the various parties mentioned in the statement of claims hereto attached, upon their executing a receipt for the same, said claims aggregating the sum of eleven thousand six hundred and twenty-one dollars and ninety-three cents ($11,621.93) and due for labor performed for, and material furnished to,

said Angus & Gindele and used upon said Section "E".

Respectfully submitted,

(Signed) THOMAS A. SMYTH,
Chairman.

J. P. MALLETTE,
J. C. BRADEN,
WM. BOLDENWECK,
THOMAS KELLY,
FRANK WENTER,
ALEX. J. JONES,
Committee on Engineering."

(Four enclosures.)

The following is

THE FINAL CERTIFICATE OF THE CHIEF ENGINEER:

"CHICAGO, Nov. 22, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Owing to the fact that Section "E" has been in the hands of three successive contracting firms it is necessary in rendering the final certificate to preface it with an explanatory statement.

This section was first let to Streeter & Keneflick under a contract dated January 31, 1893. After removing all of the material, amounting to 460,648 cubic yards, which could be handled with apparent profit, these original contractors abandoned the work, and after advertisement the section was re-let to Angus & Gindele on September 19, 1894 (Proceedings, page 2206). On December 22, 1896, these contractors went into the hands of a receiver. On March 3, 1897, the Sanitary District of Chicago accepted the assignment of the section by Angus & Gindele to Halvorson, Richards & Co. (see Proceedings, page 3918). The amount of excavation credited on corrected estimates to Angus & Gindele is 898,668 cubic yards of glacial drift. Under this assignment, Halvorson, Richards & Co. proceeded to complete the work, and they have so completed it in accordance with the terms of the contract (except as hereinafter noted), and in compliance with the order issued by the Chief Engineer under instructions from the Board of Trustees for revetting the section (see page 4299 of Proceedings) which said order fixed the price of said revetment at forty-five (45) cents per cubic yard, to the satisfaction of the Chief Engineer, except that the outer levee called for in the contract for this section has never been built, and the section was not completed on November 1. 1897, as stipulated in the assignment.

The volumes and values of work performed as shown on the final estimate are as follows:

1,424,981 cubic yards Glacial Drift at 27c.	$384,744 87
212,675 cubic yards Solid Rock at 70c.	148,872 50
1,702 cubic yards Dry Rubble Masonry at $2.00	3,404 00
193,157 cubic yards Revetment wall at 45c.	86,920 65
Removing Dam between Sections D and E previously reported	493 10
Total amount to date	$624,435 12
Less amount returned on previous estimates	546,416 49
On face of estimate amount due and unpaid	$ 78,018 63
Vouchers held by Sanitary District for final adjustment, No. 46 $ 5,373 27	
No. 47 2,156 02	7,529 29
Total	$ 85,547 92

The total amount shown as unpaid amounts to $85,547.92. At the time of the assignment of this section by Angus & Gindele the statement of their account was as follows:

898,668 cubic yards at 27c.	$242,640 36	
Paid on current estimates		$202,668 48
Balance held by Sanitary District of Chicago was,		
Reserved percentage	$30,330 04	
Unpaid vouchers	9,641 84	
Total	$39,971 88	

Sundry claims against Angus & Gindele, paid by Sanitary District of Chicago:

Laborers, Clerk's voucher No. 9,921, passed December 30, 1896	$ 6,432 88
Laborers, Clerk's voucher No. 9,922, passed December 20, 1896	6 06
Labor claims, Clerk's voucher No. 1,209, passed January 27, 1897	1,337 30
Repair of levee, Clerk's voucher No. 55, passed March 17, 1897	524 20
Labor claims, Clerk's voucher No. 227, passed June 30, 1897	4,677 80
Total amount of vouchers rendered	$12,978 24
Balance held by Sanitary District of Chicago	$26,993 64

Credit by Warrant No. 1,042, unpaid	408 66
Credit by uncalled for pay envelopes	123 45
	$27,525 75

The reserved percentage was, by assignment, made over to Halvorson, Richards & Co., subject to such outstanding obligations as the Sanitary District might be called upon to pay. These payments, as shown above, amounted to $12,978.24, which consumed the unpaid vouchers ($9,641.84) and $3,336.40 of the of the reserved percentage, leaving the amount, as shown above, $27,525.75. Including the two credits to this balance, the total balance shown as unpaid amounts to $86,080.83. Against this balance, we are advised of claims amounting to $11,621.93, which are admitted by Angus & Gindele.

There is also filed with the District by the Qualey Construction Company a claim of $5,600 which Angus & Gindele do not recognize as valid.

I recommend that the treasury of the Sanitary District be reimbursed $12,-978.24 expended on account of Angus & Gindele, the admitted claims amounting to $11,621.93 be paid to the respective claimants, and that $5,600.00 be held pending a determination of the validity of the Qualey claim, to be paid over after said determination to which ever claimant established a right to it; that the aggregate of these sums, $30,200.17, be deducted from the unpaid balance of $86,080.03 (viz: Amount of final estimate, $85,547.92+$408.66+$123.45), and that from the balance of $55,879.86, the sum of $2,258.64 be retained by the Sanitary District on account of a certain payment made to Gahan & Byrne (see Voucher No. 679, Tax Levy of 1897), for work done on the Summit and Lyons Highway which Halvorson, Richards & Co. as assignees of Angus & Gindele should have done free of cost to the Sanitary District, and that after this deduction the remaining balance of $53,621.22 be paid over to Halvorson, Richards & Co. assignees of Angus & Gindele.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,

Chief Engineer."

The following is

THE SUPPLEMENT TO THE FINAL CERTIFICATE OF THE CHIEF ENGINEER:

"CHICAGO, December 23, 1899.

To the Honorable, the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—In my final certificate of the work on Section "E", dated November 22, 1899, among other recommendations, I make the following:

'I recommend that the treasury of the Sanitary District be reimbursed $12,-978.24 expended on account of Angus & Gindele, the admitted claims amounting to $11,621.93 be paid to the respective claimants, and that $5,600.00 be held pending the determination of the validity of the Qualey claim, to be paid over after said determination to whichever claimant establishes a right to it.'

My recommendation as quoted stands, except as to the Qualey claim, which I am satisfied cannot be sustained as against this District. In support of this conclusion, I attach hereto the affidavit of C. H. Richards, of the firm of Halvorson, Richards & Co., showing and setting forth that the steam shovel was never used in the work of said Section "E", but was removed from the right of way and lands of the Sanitary District by the said Qualey Construction Company and, as affiant was informed, sold to other parties. I therefore recommend that this amount of $5,600.00 be paid over in conformity with the terms of the assignment made by Angus & Gindele to Halvorson, Richards & Co.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,

Chief Engineer."

ADJOURNMENT.

On motion of Mr. Kelly, seconded by Mr. Wenter, the Board then adjourned.

Joseph F. Haas

Clerk.